THE LANCET.

VOL. I.] LONDON, SATURDAY, DECEMBER 27, 1834. [1834-35.

PHYSIOLOGY.

LECTURES
ON THE
PHYSICAL CONDITIONS
OF THE
TISSUES OF THE HUMAN BODY
AS APPLIED TO THE EXPLANATION OF
VITAL PHENOMENA.

Delivered at the College of France in 1834.

BY F. MAGENDIE,

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LECTURE XIII.

Aneurysm explained on the Principle of the Physical Properties of Arteries.—Formation of True and False Aneurysm.—Its Effect on the Circulation.—Natural Aneurysms.—Effect on the Pulse of Contraction at the Origin of the Aorta.—M. Amussat's Attempt to experiment on Aneurysms.

Signification of the "Great Circulation."—Resumé.—The Elasticity and Structure of the Lung.

IF, Gentlemen, we pass from the subject which occupied our attention at the close of the last lecture, to the much more important one of *aneurysm*, you will find that it is totally impossible to understand that disease without studying the physical properties of the bloodvessels, and paying peculiar attention to the true theory of the circulation; for what is a *varix*, or what is an *aneurysm*, except an alteration of the tubes which carry the blood? Hence it is essentially necessary to have correct ideas on the nature and properties of those tubes, or we shall never arrive at just ideas of the alterations and diseases to which they are occasionally subject.

Aneurysm is defined by surgeons to be a dilatation of a certain portion of an artery, in which all or some of the tunics are engaged; hence the distinction of the disease into true and false aneurysm, according as the dilated part comprehends the three tunics, or is merely composed of the external cellular coat; the former is called true, the latter false circumscribed aneurysm. Let us now examine briefly the manner in which an aneurysmal tumour is formed, and see what relation there exists between its mode of formation, progress, and terminations, and the physical properties of the vessel in which it is situated.

If, then, you examine an aneurysm, whether arising from a wound of the vessel, from some morbid alteration of its tissue, or (if you are inclined to embrace a very prevalent opinion) from inflammation of the tunics, you will always find that it has commenced in a part of the vessel where the internal and middle coats have been, from some cause or other, weakened, and deprived of their natural resistance; you will discover a weak point, against which the blood is constantly driven; in time this point gives way under the action of the heart; the resistance of the two inner coats is at first completely destroyed, they yield to the pressure of the blood, and are ruptured; the fluid is now in contact with a limited surface of the external cellular coat, and the action of the heart continuing unabated, gradually distends the external tunic, and thus forms the most ordinary species of aneurysm, viz. that in which the sac is composed of cellular tissue only.

These are the most common phenomena attending the production of aneurysm in an artery. There are, indeed, some secondary ones which we have not noticed, such as the absorption of the surrounding parts, the action of the tumour on neighbouring organs, &c.; but these manifestly do not belong to our present subject; the object of which is to show how the dilatation of the arterial parietes constituting aneurysm, depends simply on mechanical causes, and cannot be understood without referring to them, at each minute.

As soon, then, as the vessel presents a

weak point, you have a tumour there formed, exactly for the same reason that blood escapes when the parietes of the artery are wounded; and if we seek for the ultimate cause of this, if we would trace the force by which the thinned and feeble tunics are distended and thrown out into a pouch, we shall arrive at the same cause which drives the blood into the arteries and veins, viz., the contractions of the left ventricle of the heart.

When once the aneurysmal tumour has been formed, the blood enters into it, or, more properly speaking, the tumour is always filled with a quantity of blood, which, being out of the line of the circulation, stagnates in the sac, and soon coagulates, forming in time, as you know, different layers of a fibrinous matter superimposed one upon the other. By degrees the more fluid contents of the sac are absorbed; the fibrinous matter acquires increased density and firmness, and at length forms an elastic substance, which bears a strong resemblance to the yellow matter composing the middle tunic of an artery. In some rare cases the coagula acquire sufficient density to resist the further introduction of fluid into the tumour, and a spontaneous cure may take place; but in a vast majority the result is different; the blood continues to force its way through the narrow mouth which connects the sac with the arterial tube, and distends the tumour more and more until it attains a certain magnitude, when a peculiar set of symptoms is developed. On some of these it will be necessary to dwell for a few minutes.

What, then, do we see in aneurysm, or what is its most leading feature? As soon as the tumour presents externally, we perceive that it pulsates exactly like an artery. Surgeons define an aneurysm to be a pulsating tumour containing blood, and communicating with an artery; but this is not the only circumstance accompanying it. Besides, the pulsation is isochronous with each contraction of the heart, the totality of the tumour undergoes a change, is dilated, and expands every time that a fresh quantity of blood enters the cavity of the sac, and this movement of expansion is given by writers as a distinctive symptom of aneurysmal from other tumours; now if this be true, it depends upon and supports the mechanical theory which we have advanced, in a decided manner; for if we suppose, with the vitalists, that the circulation is carried on by an inherent independent contraction of the tubes, you have here a phenomenon which is not only inexplicable on that supposition, but in direct contradiction with it.

We have said, that in proportion as the aneurysmal tumour acquires magnitude, a set of secondary symptoms is developed; the pulsation, for example, is not confined to the sac, but extends to the surrounding parts; and you must frequently have remarked how the tissues in the neighbourhood of an aneurysm are elevated and depressed alternately, sometimes presenting a frightful appearance, as if the heart were situated immediately under the integuments. The position of the tumour also gives rise to peculiar accidents: the parts with which it may happen to come in contact are gradually removed by absorption, and disappear; even the bones are unable to resist its progress; the ribs, sternum, vertebræ, &c., are destroyed, and the aneurysm at length constitutes a large sac, covered simply by the integuments, as you may see in the specimen before us, where the cartilages of the ribs and a portion of the sternum have given way before the gradual advance of the disease.

Under these circumstances, the existence of an immense pouch filled with blood, cannot fail to have a considerable influence on the circulation; for if the force of the heart be employed to distend a large extraneous cavity at each contraction, it cannot manifestly all go to the arteries, and hence we may deduce various useful consequences, of a practical nature, by comparing the force of the heart's contraction with the state of the pulse. In the woman, for example, from whom we took the preparation which you have just seen, the heart beat with a great degree of violence, but on placing the finger over the radial artery, we found evidence that the impulsive power of the central organ was turned aside, or otherwise employed, for the pulse in this vessel bore no proportion to the contraction of the heart; it was weak and feeble, whereas the other was violent and powerful. This difference is readily accounted for; you have only to cast your eyes on this immense elastic pouch, and to remember the manner in which it was formed and developed, to understand how the force of the heart must have been consumed by it, and kept from the vessels terminating the main trunk upon which it was situated.

The morbid arrangement essentially constituting an aneurysm, viz., the dilatation of a portion of the circumference of an artery, exists in some animals as a natural structure, and forms, if I may be allowed to invent a term, a physiological aneurysm of a peculiar kind. Thus, in frogs, you find a pouch attached to the heart, which modifies the circulation in

a manner similar to that of a true aneurysmal one, but more decisively, and hence you never have a jet produced by the artery of a frog: you may divide the large vessels supplying the thigh, but the blood discharged does not flow in a jet; it merely runs from the mouth of the wounded vessel, because in this reptile you have an organ which distends (like an aneurysmal pouch) whenever the heart pulsates, and thus turns aside a good part of its force from the arteries. In fishes the bulb of the aorta, as it is called, dilates into a sort of cavity or pouch, also bearing some resemblance to an aneurysmal tumour, and in fishes you will remark the same phenomenon to which we have just alluded: their arteries, when opened, do not furnish a jet of blood; you may expose and prick the descending or abdominal aorta, without observing any jerking stream similar to that which flows from the vessels of an animal higher up in the scale of organization; the reason here is the same as for frogs; the effect is similar, because we have similar physical conditions modifying the action of the heart on the blood, and preventing its full influence from being felt in remote parts of the circulation.

There are several other affections, as well as aneurysm, which may produce the discrepancy between the action of the heart and the pulse. We have often occasion to remark it in cases of contraction at the origin of the aorta. Thus you may be called upon to see a young patient who had fallen into a state of cachexia without any very manifest cause; he is pale and weak, and gradually wastes away without presenting any symptoms which may strike your attention; the abdominal and respiratory organs are perfectly healthy, and the appetite is good; but if you make a careful examination of the heart, you will find a want of harmony between the propelling machine and the tubes which carry the blood; you will observe a peculiar kind of bruit, to which we shall recur in a future lecture, and discover that the aorta is contracted at the point where it springs from the heart. In consequence of this organic impediment, the heart is unable to send the blood in proper quantity to the different parts of the body, although it contracts with great additional force, and you have the same small weak pulse as before, though for a different reason. The disease to which I now allude, exists much more frequently in young people than is imagined, and is very often either mistaken for a nervous affection, or overlooked altogether.

Thus you see, Gentlemen, that the theory of aneurysm is perfectly accordant with the ideas which I have endeavoured to inculcate on the true nature of the circulation, and the forces by which it is carried on, and that without a reference to physical conditions you can never arrive at a just explanation of several phenomena which present themselves in a state of disease, or during health; in short, every fact of pathology, as well as of physiology, confirms the principles now laid down.

I wish here to make a remark to you on an opinion of M. Amussat with respect to the subject now before us. He conceived the idea of making a set of experiments upon aneurysms, and producing the disease in animals, in order to investigate more perfectly their mode of formation and the changes of structure to which they give rise; for this purpose he exposed the vessels of a living animal, and destroyed the middle and internal membranes, expecting thus to develop aneurysm at will, but the result was quite contrary to that which he intended; the external cellular coat was not dilated by the current of blood; on the contrary, the artery, thus treated, contracted, and in many cases ended by being completely obliterated. This circumstance shows you how careful we should be in drawing, a priori, conclusions in physiology, and how absolutely necessary it is to confirm our ideas, however plausible, by direct experiment. As aneurysm commences by a weakening of the internal and middle tunics of an artery, one would imagine that destruction of those two coats would be the surest means of exciting the disease; experience, however, establishes the contrary; and, if we consider a little, we may perhaps arrive at an explanation. The experiment of M. Amussat, in fact, belongs rather to the blood, than to the vessel in a state of nature, and was calculated to occasion the results to which it gave rise, for the artery was put in a condition most favourable to the formation of a clot within its cavity. The internal surface had been artificially rendered unequal and rough, and an injury had been inflicted on its parietes. Now, all circumstances of this kind are known to promote the coagulation of the blood in its vessels, and the fact cannot, therefore, be brought forward as a refutation of principles which have been illustrated by so many proofs of a contrary nature.

We have now terminated one of the most interesting and useful parts of our subject, viz. the study of the physical properties exhibited by the arterial and venous systems under various circumstances, but particularly in relation to what physiologists call the "great circulation" of the blood.

You are all, doubtless, familiar with this expression, and know to what it is applied. In some animals the heart is very simple—composed of a single auricle, to receive the venous blood, and a single ventricle to distribute it through the respiratory organs, and thence to the different parts of the body: such is the structure in fishes, where the circulation is more simple than in any other class of vertebrated animals; but in man, and the higher order of animals, the central organ is composed of two distinct divisions, the right or anterior being destined to circulate the blood through the lungs, while the left or posterior division distributes its contents to the organs and tissues of the rest of the body, through the medium of a large trunk springing directly from the summit of the left ventricle.

This large vessel, the aorta, sends off branches to the head and upper extremities, and then descends along the vertebral column to supply the chest, abdomen, and lower extremities; its terminal branches anastomose for the most part directly with the venous radicles, which latter unite to form single trunks, generally corresponding with the principal arteries, until at length the whole venous system is assembled into two large branches, the ascending and descending venæ cavæ; these pour their blood into the right side of the heart, and thus terminate what we have called the "great circulation," to distinguish it from that which takes place through the lungs by the pulmonary artery and veins.

We have applied ourselves chiefly to study the various circumstances under which the elasticity of the arterial parietes is developed, and have shown how this physical property is intimately connected with the most important conditions of the circulation in the human body. There is not, in fact, a single phenomena of any consequence, which may not be explained by reference to this principle, and to this only. The motion of the blood through the different tubes, whether arterial or venous, its rapidity in the different sections of each system, the perfect regularity of its march, the jerking stream which flows from a divided artery, all these are circumstances, the explanation of which are to be sought for in the physical properties of the vessels themselves, and in the mechanical nature of the force which gives to the blood its first impulse. The utility, or, rather, the necessity which exists for the presence of elastic tissue in the vessels, was also deduced from a consideration of several morbid phenomena in the circulating system; thus when its elasticity is lost by the deposit of osseous matter in any quantity between the internal and middle coats, the regularity of the circulation is interrupted by a change of physical conditions, and various accidents, some of them giving rise to dangerous or fatal consequences, are produced.

The property to which we allude also acts in a beautiful manner, by transforming the alternate motion of the heart into a slow but constant motion of the blood in the arteries, thus producing a phenomenon which had for a length of time baffled mechanicians, but which in the human body is essentially necessary for the due and wholesome exercise of the several functions. A similar effect is seen throughout the venous system; the parietes of the veins are elastic, though in a lesser degree than those of the arteries, and the presence of this single property explains many phenomena which it would be impossible to comprehend without a reference to it.

If, then, we desire to obtain a true theory of the circulation, one which will embrace equally the different circumstances observed in disease and in health, we must incessantly recur to the elastic property of the arterial and venous tubes, and not permit ourselves to be led away from the path of observation to seek for imaginary properties in the vessels, or a capillary vital action, where a physical condition is sufficient. You also saw how we are enabled to arrive at the most important practical results, by investigating the subject in its proper light, by following up the physical conditions of our tissues, and applying the principles thence derived, to therapeutics. It is in this way that I have deduced the true theory of the formation and treatment of aneurysmal tumours, and proved that the different changes which an artery undergoes during the progress of that disease, together with the various secondary affections or symptoms to which it may give rise, cannot be understood without a constant reference to the physical properties of the vessel so affected. This, I say, is indispensably necessary to the conception of just ideas on the nature of aneurysm, and even throws considerable light on the manner in which hemorrhage is arrested by the application of a ligature to the bleeding vessel.

We shall continue, Gentlemen, now to pursue this property to the other organs of the human body, and begin with one which possesses elasticity in a most remarkable degree. I have only to name the lung, in order at once to draw your attention to an organic apparatus which is of the utmost importance to the support of life, and in which we find an elas-

tic structure developed to a very high degree, as much so perhaps as in the circulating system.

You all know, without doubt, what the lung is, and it will not, therefore, be necessary for me to enter into any anatomical details or to describe its structure intimately. I shall merely lay before you a few general considerations, which it may be useful to bear in mind. The lung, then, in an anatomical point of view, is a vascular organ, composed of an immense number of veins, arteries, and lymphatic vessels, connected together and surrounded by cellular membrane, so as to form by their intersections and anastomoses the pulmonary areoli or vesicles.

If we examine this latter portion or "parenchyma," as it has been called by anatomists, we shall find that it is exclusively formed of vessels, distributed throughout masses of cellular substance, and it is to this that we would particularly direct your attention, as being essentially connected with our present subject.

The pulmonary artery, you know, is a large vessel, which passes from the heart directly to the lungs, and there divides into an immense number of capillary tubes; these terminal vessels are extremely fine, smaller than even the finest hair, and after having traversed the lobules in every direction, end in the roots of the pulmonary veins. You have thus a perfect continuity of structure, and a direct communication between the arterial and venous radicles in the interior of the lung.

This disposition may, perhaps, not be seen very readily in man, and other warm-blooded animals, but the continuity of the arteries with the veins may be demonstrated with the utmost facility in cold-blooded animals, as, for example, in the lung of a reptile, where you may see the circulation carried on directly, from one order of vessels to the other, without any intermediate apparatus to assist its passage, or without the slightest appearance of undergoing any transition.

As the pulmonary artery is subdivided into an infinite number of small vessels, it results that we must have an infinite number of venous radicles to receive them. In fact, the greatest part of the lung is composed of the anastomoses formed thus in every point of it between the minute branches of bloodvessels. This you may easily convince yourselves of by taking the lung of a living animal, and making the slightest prick on any part of its surface; no matter how fine the instrument you use, you will always have a discharge of blood from the wound. A similar structure indeed exists in all our other organs, which are essentially composed of veins, arteries, and parenchymatous substance; but in the lung the proportion of bloodvessels is wonderfully exaggerated; besides we have not, properly speaking, any parenchymatous substance entering into its composition; throughout the whole mass we find a number of vessel, and nothing else.

In addition to the vessels of which we have just spoken, we have a different kind of tubes, forming a component part of the pulmonary apparatus. These are the divisions and subdivisions of the trachea which accompany the branches of the pulmonary artery to each lobule subdividing with it, until at length each terminates in a very small tube, which seems to end suddenly in the pulmonary areolæ.

Thus, Gentlemen, you see that the intimate structure of the lung is made up entirely of three orders of tubes, viz., arteries, veins, and bronchi, or branches of the trachea. Now these several parts do not lose their physical conditions from the mere circumstance of being subdivided in a very high degree, and hence the lung, which is composed of them, must be an extremely elastic organ. In short, this property essentially belongs to the lung from the nature of its structure. The pulmonary arteries and veins, which abound in every portion of the lung, are as elastic as vessels in any other parts of the body, and in addition to these we have an immense number of tubes derived from the divisions of the trachea. You know well enough that this latter body is endowed with a high degree of elasticity, for it has a peculiar substance expressly placed there to make it so, and hence the lung which is formed by the union of these elastic parts, must itself exhibit the property in a remarkble manner.

This is so evident, that I do not think it necessary to insist on it at any length; besides, the elasticity of the lungs is admitted by all physiologists of the present day; but many of them are inclined to assert that the lung possesses also a power of contraction inherent in it, and support this opinion by the well-known fact of the organ returning to its original state when inflated. The existence of this property in the living, or even in the dead lung, is beyond all doubt, and you have only to open the chest of a dead subject, and inflate the organ by a pipe introduced into the trachea; when you cease to blow, the lung, which was dilated to a considerable degree of itself, expels a great part of the air contained in its cells, and returns very nearly to its natural dimensions; but this phenomenon is far from depending on a vital contraction of the organ; it is the simple return

of a highly elastic tissue to its normal state as soon as the distending force ceases to act; and we can no more apply the term contraction (in the sense of the *vitalists*) to this purely physical phenomenon, than we can to the diminution of caliber which an artery undergoes at each pulsation; they are both phenomena of the same kind, and depend essentially on the same cause.

If, therefore, you say that the lung is endowed with a property by which it returns to its normal state when the air-cells are enlarged, you express a familiar fact, and I agree entirely with the proposition; but if, with some physiologists of the present day, you attribute this change of form to any power analogous to muscular action, I withhold my assent, and combat the opinion as warmly as I did that which created a similar muscular property for the parietes of the circulating vessels.

This spontaneous action of the lung, by which it returns upon itself, is witnessed in the organization of the dead as well as of the living body, and this appears to me an unanswerable argument to prove that it cannot be connected with a vital property, for were this the case, the phenomenon must necessarily cease after death. Thus, when I prick this muscle, it does not contract or undergo any change of form. Why? The reason is evident. The animal is dead; and as the contraction of a muscle is a vital act, one depending on a vital property, it cannot take place in an animal deprived of life. Were it, on the contrary, a physical property, if the mere act of dividing a muscuar fibre were sufficient to develop its contractions, independently of all other considerations, I should have contraction of this dead muscle, because I have fulfilled the physical condition necessary to set it in motion. We must here, for to-day, close our remarks.

Age of Man.—It may be doubted whether the life of man ever reached to 120 years. The *best-authenticated* case of this age appears to be that of J. Jacobs, formerly a peasant, who travelled, at that age, from the Jura mountains to Versailles to thank the National Assembly for relieving him from the feudal yoke. He was received by all the members standing and uncovered, and a collection made for him amongst them amounted to 500*l*. He died in January, 1790, in Paris. The next *best-authenticated* case is that of Mr. Ingleby, 95 years a domestic in the Webster family, who died in 1798, aged 117.—*New Monthly Magazine*, December.

CLINICAL SURGERY.

INTRODUCTORY LECTURE,

DELIVERED AT THE

NORTH LONDON HOSPITAL,

(*University of London*), *Dec.* 20, 1831,

By ROBERT LISTON, Esq.,

Surgeon to the Hospital, and Professor of Clinical Surgery in the University.

Preliminary Remarks.—History of Clinical Medicine.—Nature of Clinical Instruction.—Use of the term "Clinical."—On the Formation of Diagnosis.—Disease of the Hip, aggravated by a Fall, mistaken for Dislocation.—Injury of the Shoulder-joint similarly mistaken.—Tumour of the Clavicle mistaken for and treated as an Aneurysm.—Malignant Tumour involving the Upper Part of the Femur, mistaken for and treated as Aneurysm of the Internal Iliac.—Prognosis of Cases.—Principles of Treatment.—Attention to Causes.—Large Inflammatory Tumour of the Neck cured by Removal of a Tooth.—Severe Affection of the Throat similarly treated.—Long Maltreatment of an Eye which simply required the Removal of Eyelashes.—Cure of Prolapsus Recti by the Extraction of Urinary Calculi.—Conclusion.

After the very kind and flattering reception which I have met with on joining this great medical school, both from the professors engaged in communicating information at the University and also from you, Gentlemen, who are following out and perfecting yourselves in your profession in this hospital, I have every confidence that, on this occasion, indulgence will be extended to me, and that any deficiencies or imperfections in the matter or manner of my discourse, will be alike overlooked and forgiven. I had certainly contemplated appearing before you to commence my duties as surgeon and clinical lecturer,—such duties as I have for a long series of years performed (with what approbation and success it does not become me to say) in a large and well-regulated public hospital. It may, after this statement, appear that I am not entitled to make an excuse for myself, or expect that it should be received by you if I make one. Between the time of my appointment to this chair, and my departure from the scene of my former labours for this great metropolis (constituting but a very short period), and

since my arrival amongst you, I have had much more than sufficient business to occupy my time and attention. Everything appertaining to me, you may well believe,—books, papers, drawings, or specimens (to say nothing of the contents of my own cranium),—has been in a state of almost inextricable confusion. Before leaving Edinburgh, I had assembled together a few books and pamphlets from which I thought useful information regarding the history of clinical instruction might be gleaned. These had been mislaid, and were not forthcoming on my arrival in London. This note-book, however, containing a few memoranda, of little consequence, and not referring to the present subject, were separated from the parcel, and sent. My books may probably not come to hand for a long time after they might have been turned to account.

I recollect this much of the history of clinical medicine, that it was mixed up and blended with that of medicine and surgery generally. One author, whose name has entirely escaped my memory, I think, sets out with HIPPOCRATES, the father of physic, as the first clinical professor; and very properly too, for all those who from the earliest ages have observed disease closely, and taught any branch of the healing art efficiently (as did HIPPOCRATES, GALEN, ÆTIUS, PAUL of Egina, and all those who followed after), must have made constant reference to the symptoms of disease as they are observable at the bedside of the patient, and to the changes produced by, or occasioning, perverted action in the different organs and tissues composing the human body. The history of clinical medicine, as given by the author referred to, is thus, at best, but an abridgment from LE CLERC's, or some other author's history of the progress of medical science, and of those most distinguished as professors of the healing art in different ages. By clinical instruction is meant, that *practical* information relative to disease, which is communicated at the bedside of those who are suffering under its attacks, by observation on the part of the pupil, and explanation by the practitioner and teacher, of the signs, symptoms, causes, phenomena, and treatment, of various diseases; and, necessarily coupled with it, is the examination of the morbid appearances, and the connexion of these with the previously observed circumstances. In point of fact, clinical lectures on medicine and surgery stand in the same relation to the systematic courses on the same subjects, delivered in the schools, as do demonstration, and practical instruction, and pursuits in anatomy and chemistry, to their corresponding courses of lectures. ΚΛινοσ signifies a bedpost, and clinical lectures are bedside, not curtain lectures, of which last, few of you here as yet know the scope and tendency.

Clinical instruction may be conveyed after two different fashions, both useful in their way. The first form of clinical instruction may be given *really* at the bedside of the patient, or immediately after the examination of the patient, in the wards, or the lobbies leading to them. This is the "ambulatory clinic," and is a most useful and valuable addition to the "walking" of an hospital. A young man, however extensive his theoretical knowledge may be, will find it insufficient and inapplicable at the bedside of the patient. And there are very few young physicians or surgeons who, at the commencement of their career, have not felt the truth of this remark. The pupil requires to be guided in his *walks*, or to have those objects which are of the greatest interest and importance to his future success pointed out and impressed upon him. He may otherwise prolong his peregrinations to an indefinite period, with little advantage. Even by listening to the inquiries made of the patient, as to his profession, habits of life, previous health, or diseased state,—the causes, symptoms, and progress of his malady, much may be gained; but when this is followed up by a few judicious hints and *remarks* as to what has passed, the nature of the case becomes plain, and an indelible impression is made on his mind. These observations, however, be it observed, require to be made *at the bedside*, with every deference to the feelings and fears of the patients, and with the utmost caution, as, not unfrequently, patients misunderstand what is expressed or meant. Many remarks as to the *probable result* ("prognosis," as it is called), the effects of remedies, the necessity that may arise for operative procedure, cannot be made with propriety in the hearing of those who are suffering under disease, and never would be attempted by any man of common sense, whether a professor or a pupil. The second form of clinical instruction consists in more extended, formal, and systematic discourses on disease, founded upon and illustrated by a case, or series of cases of the same kind, or bearing upon one another, *under treatment in the wards, and open to the observation of the pupils*; at least I have always thus understood the term "clinical." Essays on surgical or medical subjects are now and then composed at leisure, be it observed; *never delivered* to a class of pupils, and published under the name of "*Clinical* Lectures."

And, again, lectures appear to be sometimes given in this metropolis at an hospital, but not on the cases under the observation of the pupils of that hospital,—of those to whom the lecture is addressed; and then, again, are published as "Clinical." It seems to be the fashion now to apply the term very indiscriminately, but to my apprehension the fashion is a very absurd one. It is a perfect prostitution of the term. Let those gentlemen give their lucubrations what other name they will,—"Essays," or "Discourses," as may be, on particular subjects. Assuredly they are not deserving of the name of "Clinical," if they do not refer to cases under the observation of those to whom they are addressed. Each of the methods above spoken of shall be attentively pursued here, and I expect and trust that they may prove separately and conjointly advantageous to you.

In this country the methodical instruction in hospitals has not been so efficiently or regularly followed out as on the continent. What names of clinical professors in our department have we to oppose to those of DESAULT, of PELLETAN, SCARPA, BOYER, GRAEFE, DELPECH, and though last, not least, the illustrious DUPUYTREN? Names not more known or respected in Europe than over the whole world. The value and importance of this mode of acquiring correct views of the science is now better appreciated and understood in this country, and every year must lead to the more extensive spread of useful knowledge in this department.

In the prosecution of your studies here, the absolute necessity of obtaining an accurate history of each case presented before you, be it of disease or of injury, will soon be made apparent, and you will be shown the proper mode of setting about the inquiry. This is quite essential, in a great majority of cases, to the formation of a correct *diagnosis* or discrimination of one disease or injury from another, and without that, no true or successful practice can follow. "Diagnosis is, in truth, one of the most important parts of surgical pathology; because it detects the character of diseases, prognosticates their termination, and points out the treatment to be adopted. An error in this respect often entails most lamentable consequences on the health or life of the patient." I may be permitted in illustration to relate a case or two bearing on this point:—

About two years ago I was called in to reduce a supposed luxation of the hip-joint, in a patient who was about twenty years of age. He had been employed the day previously in cleaning out a slaughter-house. He was standing on two blocks of wood; one of them slipped away from the other, and he fell with the limbs spread apart. He was unable to move after the accident. I found him lying on a mattress on the floor, it being impossible to move him into bed. The left leg was elongated considerably, and the hip flattened. He was very unwilling to allow the limb to be moved, and suffered great pain when any attempt was made to change its position. The head of the bone was supposed to be lodged in the foramen thyroideum. Looking to the manner in which the patient fell, it was very likely that that injury would have been the result. Although there was flattening of the hip, the remarkable depression in the situation of the trochanter, indicative of this form of dislocation, was wanting, and the abridgment of motion so remarkable in dislocation was not observable in this case. In pursuing the inquiries into the history of the case, I, with some trouble, discovered that for several months past he had complained of stiffness in the limb, and weariness at night. He walked rather lame, and felt as if that limb were a little longer than the other. From this it would appear that the case was one of disease of the hip, aggravated by the twisting of the affected apparatus of the joint, and not a luxation, as had been supposed. No doubt considerably greater elongation had supervened, as I have observed in some similar cases, upon the accident. You may easily guess what would have followed the application of extension and counter extension, and the employment of great force which might have been required to remedy such an injury, as was supposed to have happened, in a young and muscular person. Even the injury which had been inflicted by the fall, was attended with great suffering and much risk. Inflammation, suppuration, violent fever, and a fatal termination, in all probability, would have been the result of a false diagnosis and consequent malpractice. Rest, antiphlogistic means, and a long-continued drain from the neighbourhood of the articulation in the above case, were recommended, and, so far as I know, the employment of those means was followed by a happy result.

Again, I may refer you to injuries of the shoulder-joint, to show the necessity of a correct diagnosis being at once formed and acted upon. You may be called, perhaps, to a patient who has received an injury of the upper extremity; he is labouring under great pain, much aggravated in any attempt at moving the shoulder-joint. The shoulder is found to be flattened if the injury be recent, and the limb elongated. The patient was not

so much intoxicated or stunned by the fall, but that he recollects all about the nature of the accident. Before putting him to the pain of examination, it would be well to inquire into every circumstance connected with it. He will tell you, probably, that having had his arm entangled, having, perhaps, had his hand in his pocket, he was tripped up, and fell on the shoulder. The chances are, that there is no luxation, as the patient is probably at first led to believe, but that by the direct violence, the neck or the head of the humerus, or the articulating part of the scapula, has given way; and thus you can form your diagnosis, and, upon that, your plan of cure, by an accurate and a much less painful examination than would have been necessary had you failed in obtaining the history of the case. Such cases are of common occurrence, and I have made the statement in general terms.

I could, if it were necessary, from my case books, particularize instances where, from neglect of such inquiry and examination, patients have been treated for dislocations when labouring under fracture,—who have had the fragments of bone torn asunder again and again,—have endured the most dreadful tortures, and, if not disabled entirely, have had their recovery retarded, their health broken, and their occupations much interfered with by such proceedings. Again; cases of luxation have been treated as if fracture had occurred,—an equally awkward and unjustifiable mistake (fallen into only through gross ignorance and carelessness), and one leading to much suffering and permanent lameness. No language is too strong to express execration of such careless and heartless proceedings.

Error in diagnosis may also lead to the performance of surgical operations (if they can be so called when undertaken under such circumstances), in themselves dangerous to life, altogether unnecessary, and, as such, unwarrantable and cruel in the highest degree. Aneurysms have often been mistaken for abscesses, and openings have been made into them. I have seen more than one such case. Operations for aneurysm have been performed when abscess existed. Glandular swellings, to my knowledge, have been mistaken for hernia, and hernia for enlarged glands. From want of a proper diagnosis, and of that faculty which it is not very easy to acquire—"surgical tact"—cases in which the bladder has been cut into in the expectation of, but without finding, a stone, have been of too common occurrence. Yet grosser blunders have been committed I fear from too great anxiety to perform what are called the "greater" operations. I beg to refer you to two such cases, published within the last twelve months; one of them is (if I recollect rightly) to be found in a late number of the *Edinburgh Medical and Surgical Journal*, where, from a mistaken diagnosis, an operation, at all times attended with great risk, even in the hands of the most expert—of those who are most accustomed to such work—was had recourse to,—the ligature of the subclavian. The tumour was not, as was supposed by the practitioner, an aneurysm, but one of a solid nature, arising from the bone. The death of the patient, from secondary hemorrhage, at no very long period after the operation, led to the discovery of the error. This took place in a very remote district—at the other end of the island.

But to come nearer home, I may instance a very similar case, in which, though the patient did not perish from the operation, yet her life was put in imminent jeopardy by it. I had seen this patient while passing through Aberdeen on my return from a professional visit, and after examining it, very fortunately hit upon the true nature of the case, and expressed my opinion accordingly; I say "fortunately," seeing that very great people who saw the case were of a different opinion. I must presume that the diagnosis was difficult, and that I happened to be right merely by chance. My opinion then was, as can be confirmed by those who were in attendance, that the tumour was one of a malignant nature, and involving the upper part of the femur. The patient was transferred to this city, "as nothing could be done for her in Scotland." There was some difference of opinion in regard to the nature of the case. Amongst those who were consulted here, one gentleman had decided that the tumour was an aneurysm, and to this opinion the others were brought to assent. In an account of the case published in one of the London medical journals, the tumour is represented to have had a distinct pulsation. At an early stage of the disease I could not discover the least either of pulsation or of whizzing noise. Under the supposition that this large tumour of the hip was an aneurysm of some one of the branches of the internal iliac, an operation was undertaken. The internal iliac, which it was the operator's object to reach, could not be secured, but in lieu of it, after more than one opening had been made into the cavity of the peritoneum, and the state of some of the chylopoietic and assistant chylopoietic viscera ascertained, the common iliac was surrounded by a ligature. The patient, strange

to say, did not suffer, as might have been expected, from such a proceeding. She was, at no distant date from that of the operation, announced in some of the "journals to be quite cured, and was sent home, able to bear the motion of a carriage." The growth of the tumour may certainly have been in some measure retarded by this operation, but after her return the disease continued to gain ground. She now suffered the most dreadful agony, which the largest doses of opium that it was thought safe to administer, had very little effect in relieving. The patient at last succumbed beneath the malady, and, upon examination, the diagnosis which I had formed was found to be correct. I shall on a future occasion show you a sketch of the swelling, and the state in which the vessels were found. The case has been published, with an explanation referring to a plate, but so far as I am aware, the plate itself has not as yet appeared. This deficiency, however, I can supply to you, by the kindness of my friend Dr. Dyce, of Aberdeen, who attended the patient both before and after her visit to London, and conducted the *post-mortem* examination. In both of these cases, so far as my memory serves, the swelling followed upon a bruise; and this circumstance of itself ought to have excited doubts as to the existence of an aneurysmal tumour,—of a tumour arising from the yielding of a single vessel.

In forming what is called the "prognosis" of a case—and this, as already stated, will depend for its accuracy entirely upon a knowledge of what the disease is or is not, and in giving an opinion as to the probable result of any case—the greatest caution is to be observed. An opinion in regard to any case must be formed and expressed after a very careful examination into all the circumstances connected with it, and in drawing those conclusions you ought neither to be too confident nor too hasty. I caution you also against believing that any observations which you may make, are entirely new to others. Many more "discoveries" are made by those who are learning their profession, whether they learn it early or late in life, than by those who have had much experience in it. You must be prepared to make every allowance for the caution of your seniors in the profession,—a caution which is only to be gained by long experience and patient investigation.

As concerns the *treatment* of cases, I shall have frequent occasion to inculcate upon you what I have already done at considerable length in the ambulatory clinics, namely, the necessity in all cases of endeavouring to discover the immediate or proximate cause of the disease, and, in the first instance,—and that, too, before employing any treatment whatever, constitutional or local,—to remove that cause if possible. It does not always follow, as a matter of course, that upon the removal of the cause—the more especially if it have been long in operation—the effects disappear. Very frequently, however, they do so, and that rapidly. In every case the removal of the cause of a disease will render it more probable that the other means employed will take effect, and thus the cure will be expedited and rendered permanent. This is much more easy, as you can easily understand, in external than in internal diseases, and hence, in a great measure, arise the superiority and certainty of the one part of the science over the other. This precaution is too frequently neglected, and here I may again be permitted to relate a case or two in illustration.

The necessity for this precaution was very apparent in a case now under treatment in the hospital. The patient to whom I allude is in one of the upper wards,—a young female who laboured under a very painful inflammatory tumour of the neck. The tumour was rapidly increasing in size, and threatening to suppurate. The patient had a considerable degree of inflammatory fever; and constitutional means had been employed to subdue this. She had been salivated, if I do not mistake. You must have observed the rapid amendment in this case, the speedy absorption of the tumour, and the subsidence of all constitutional disturbance immediately upon the removal of the cause,—a very palpable and obvious one,—a dead portion of one of the molares in the upper jaw. In this instance the removal of the cause was sufficient,—with very little local treatment,—merely fomentations,—to remove the whole of the mischief with amazing rapidity. This would not have been effected by mercury, or other general remedies, so far as my experience goes.

I here exhibit to you another tooth, which was the source of very great inconvenience to a young gentleman, a pupil at the Edinburgh Hospital. He applied to me, after having laboured for a very considerable time under swelling and ulceration of the throat. He had, like many other young men, some years previously, contracted a slight venereal affection. He had been treated in the common form, with mercurial medicines, probably unnecessarily. When his throat became affected, he applied to a medical man, who was inclined to attribute the whole of the malady to a venereal taint. The young man

was subjected to all sorts of constitutional treatment; he first had doses of mercury given to him, and, after that, the symptoms not being in any way abated, he took sarsaparilla until he was sickened by it. Besides this, topical applications were made to his neck, which had also been leeched, and treated with counter irritation. I have received a copy of the notes of this case from the young gentleman, but, unfortunately, in the general confusion it has fallen aside. Upon application to me, I observed the throat to be relaxed and I saw that it was slightly ulcerated, and my attention was directed to the state of the molares. This portion of tooth was the remains of one of the dentes sapientiæ of the lower jaw, immediately in contact, as you are aware, with the soft palate. I advised its extraction. This, however, was delayed for some eight or ten days, the symptoms still continuing so severe as, occasionally, in damp weather, to confine the patient to the house. At last he took courage, and had the tooth extracted. I met him in the street, carrying it in his hand for me; and it is, as you may observe, a very beautiful specimen. At the extremity of the fang is observable one of those little sacs which, by their increase, often lead to much more serious consequences than had happened in this case. The cysts I allude to I have no doubt often lay the foundation of many of those dreadful diseases of the jaw which come afterwards to be removable only by severe operation—to the diseases named "osteo sarcoma" and "spina ventosa."

In this little jar is a preparation to which very little value might be attached, and it is really of no value, excepting as a memorandum of a very interesting case. It has escaped, too, from its situation during its transmission here. Upon looking at the little body floating in the spirit, you may notice one or two hairs standing out from it. This is a part of the edge of an eyelid, with eyelashes growing irregularly from it, and this, as is often the case, gave rise to a great deal of distress, and to the loss of the very important organ in its neighbourhood. The patient from whom this was obtained was one of the nurses in the *Royal Infirmary* at Edinburgh. She had been placed by the matron under the charge of one of the clinical professors of medicine, for an inflammation of her eye. She was treated by this gentleman, and by one who succeeded him in the charge of the patients, very actively, both by local and constitutional means, as you must be prepared to admit. Blood was taken from the neighbourhood of the inflamed organ, by leeches and by scarifications; applications hot and cold, sedative and stimulant, were used, without any relief from the symptoms. The general treatment consisted in abstraction of blood from the arm, application of blisters behind the ear, and to the nape of the neck. I think the patient was cupped at least six times on the temple, a practice, under any circumstances very unjustifiable, seeing that from one incision in this situation, instead of six or eight, any quantity of blood can readily be obtained. Besides all this, internal medicines were exhibited, with no sparing hand, quinine and turpentine; and, upon the failure of all these means, local and general, as is too frequently the case in the practice of those who do as they have seen others do before them, without thinking for themselves,—who do not look beyond the surface, and not even to that, it would appear,—the patient was put under a long and severe course of mercury. In this way her constitution was by no means improved, for the local disease every day gained ground, and at last, after three months suffering, the poor woman was transferred to the surgical wards. I recognised the patient as having been under my care formerly, and for a similar affection, which yielded to the removal of a few stray eyelashes. Even with the scar of this operation before them, the nature of the case was not suspected. This little bit of eyelid was removed, and, as would have been the case had it been done at an earlier period, all the symptoms were speedily abated. The cornea, however, was so altered in structure, that there is very little probability that the functions of the organ will ever be restored.

I will mention one other case in illustration of the position which I have laid down,—that of an old gentleman who had been under the treatment both of physicians and surgeons for the space of six years for a prolapsus of the rectum, and detained from his residence in the country, from his family and friends. During all that time large portions of the bowel fell down every time the canal was emptied, and sometimes this protrusion was reduced with difficulty. Even in walking along the streets, prolapsus occurred,—sometimes irreducible, producing very great suffering, attended by profuse hemorrhage. This patient also laboured under some urinary complaints, but these had been attributed by the gentlemen under whose care he had been, to the affection of the lower part of the bowel, and thus overlooked. In this view I was not inclined to concur. Upon the introduction of a sound, more than one

stone was discovered. The old gentleman, although about seventy years of age, had very great courage, and he immediately arranged his matters, and submitted to the operation on the following morning. Eighteen calculi were extracted. He recovered with speed, and forthwith this troublesome affection of the fundament left him. It is now five or six years since the operation was performed; he possesses perfect health, and seems to enjoy himself as much as any one at his period of life.

Now, Gentlemen, I have still some further remarks to make regarding the principles which should guide us in the treatment of surgical diseases. I have to inculcate upon you the obligation you lie under to the public, to prepare yourselves, by close attention to the nature and progress of diseases, and their pathological appearances, for their judicious management. It shall be my anxious study to point out to you those means, both local and constitutional, by which disease may be checked in its earlier stages, and by which, even under unfavourable circumstances, the performance of surgical operations may be averted, or dispensed with entirely. I have also some few remarks to make to you on the subject of what is called the constitutional management of local diseases, on the folly and danger of a blind and indiscriminate adherence to theories, and a perseverance in some fashionable remedies and modes of treatment, but I now fear I shall encroach on my learned colleague Professor ELLIOTSON's time of lecturing; these remarks must accordingly be delayed until I shall have the pleasure of meeting you here again. After making these general remarks, in all probability I shall direct your attention to some cases of disease about the anus, a good many of which, and of an interesting character, have presented since the hospital was opened, cases of hemorrhoid, of condyloma, of prolapsus, of fistula, one of new growth, also, a sort of warty excrescence embraced by the sphincter, and, from its position, occasioning great suffering, and giving rise to an ulcerated cavity within the verge of the anus. To these, and a case of traumatic tetanus, with some others of interest, I beg you to direct your attention in the mean time.

ORGANIZATION is, as it were, a crystallization, which has a tendency to assume a vesicular form, and produces a cell which is capable of absorbing the gases necessary both for its own vesicular development, and for the reproduction of others which are similar to it.—*Raspail.*

UNIVERSITY OF LONDON.

CLINICAL LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

A. T. THOMSON, M.D.,

Physician to the Hospital, and Professor of Materia Medica in the University.

LECTURE III.

AGUE WITH ANOMALOUS SYMPTOMS.—*Continued Cough not essentially Phthisical.*

GENTLEMEN,—The anomalous case of intermittent, to which I directed your attention in my last lecture (see page 447), has, in the progress of its treatment, fully justified both the diagnosis that I formed, and the prognosis which I hazarded. On the fifth day after the admission of the patient, the period of the paroxysm changed from the afternoon, to three o'clock in the morning, and instead of the simple chilliness the attack was ushered in with a regular shivering fit; this was succeeded by the usual dry heat of body, with tingling, and a sensation of swelling in the throat, but not by perspiration; nor has a very obvious determination to the skin, or reaction, displayed itself, although she is nearly convalescent. She has had no paroxysm for three days; her complexion has lost its sallow hue; her mental physiognomy has brightened; her strength has improved; and except that she still complains of the cough and the tightness across the chest, she may be pronounced to be almost well. But this affection of the chest must not be overlooked; and must be relieved, if not altogether removed, before her recovery can be said to be complete. If we reflect upon the length of time that this poor woman has been labouring under the disease, we shall not think it surprising that inflammation has occurred in the lungs; but you ought to be well aware that fruitless and violent coughing, with pain and great constriction about the precordia, by no means indicate the existence of inflammatory action in the thoracic viscera in intermittents. It is, nevertheless, true that in cases where a tubercular diathesis exists, continued cough, from any cause, whether connected with the lungs, and existing irritation there, or merely arising from irritation of the glottis, such as occasionally occurs from an elongated uvula tickling the glottis, might bring on phthisis, and terminate fatally. But, besides the absence

of those symptoms which percussion and auscultation discover when active tubercular disease is present, the cough in this case has not increased, although it has been constant; and from the general soreness of the chest, and the frontal headach which accompanies it, it resembles more the cough of chronic catarrh than that of phthisis. I attribute it in a great degree to the deficient reaction which characterizes the attack; and when the vigour of the habit is restored, if the cough still continue, I shall feel disposed to attack it by moderate blood-letting and counter-irritation. In the present state of the patient neither is advisable. As it is probable, nay certain, that this woman will be discharged before our next lecture, I would now mention to you, that whatever may be the nature of miasmata, moist air (that is, a humid atmosphere) exerts such a depressing influence on the system, that it plays a very important part in the production of agues, and may have done so in this case. Now we find that agues occur most frequently in foggy weather, a circumstance which I am induced to refer to the evolution of much hydrogen during such a condition of the atmosphere; and we learn from the experiments of the late Sir John Leslie, that the process of cooling proceeds more rapidly in hydrogen gas than in atmospheric air. But I fear you will think I am leading you into the labyrinths of hypothesis, when the occasion demands a strict adherence to the even path of fact, if I say more on the subject.

PHTHISIS. — *Hereditary Predisposition; Diagnosis of Tuberculous Cough; Hæmoptysis; Lunar Caustic Blistering on the Chest; Tonics.*

Having turned your attention to phthisis, I wish to address to you a few remarks on the case of James Smith, a patient only eighteen years of age, who was admitted on the third day after the hospital was opened, and whose case is one which I regard with much anxiety and interest. His brother was admitted on the same day, under the care of my learned colleague Dr. ELLIOTSON, and had I not witnessed the existence of an advanced tubercular cough in the brother, I should have been much disposed to treat my patient as labouring solely under that form of gastric irritation, which is frequently attended with a cough very closely resembling a phthsical cough, in the early stage of the disease. It resembled the gastric or stomach cough by occurring in paroxysms, and exciting an uneasy sensation, which was referred to the epigastric region rather than to the thorax. The patient was emaciated and pale, but devoid of any hectic spot on the cheek. He complained of pain at the region of the stomach after taking food, and of cold extremities. The bowels were rather confined, and the urine was high-coloured. The general aspect of the lad indicates ill health; his features are somewhat sunk, but notwithstanding the uneasiness at the epigastrium, and an occasional frontal headach in the evening, and the cough, I could fix upon no symptom that would have fully autho ized the diagnosis, that he was labouring under incipient tubercular phthisis on his entrance into the hospital. The symptoms in some respects have changed, and, in particular, the state of the expectorated matter indicates the existence not only of tubercles in an incipient active state, but tubercles already sufficiently advanced to be in that stage of their progress which is termed "softening," and which displays the tuberculous deposit in the sputa. The true character of the disease is also now indicated by the state of the respiration; the clavicles, which are very prominent, are scarcely raised during inspiration; and when the chest is attempted to be expanded by a full inspiration, it seems as if it were forcibly dragged upwards. Percussion affords a dull sound just below the clavicular region, and when the aid of the ear is called in, the respiration is obscure, and a slight crackling is perceptible.

Many of you must have observed the rapid change which the symptoms have displayed in this case, in the course of there weeks; and, as the obscurity which at first hung over the diagnosis is now removed, it is my duty to direct your attention particularly to the patient, as opening a most instructive field for your observation, and such a study of this unmanageable disease, as rarely presents itself. The hereditary predisposition to phthisis in this instance is undoubted. Your first object, therefore, should be to distinguish between the real tuberculous cough, and that arising from other diseases which simulate it. You will find that, already, in our patient, this prominent symptom is aggravated after every meal, is occasionally accompanied with vomiting, and brings on a pain of the chest, which, however, at present, subsides in a short time, and only returns with a renewal of the cough. The sputa is already mixed with a gray, somewhat puriform-looking fluid, which is evidently of tuberculous origin. The mucus is ropy and transparent, and mingled with specks, opaque, and varying in colour from an ash-gray to a greenish yellow. When he expectorates into water, you will find that these gray masses have more specific gravity than the other parts of the sputa, and that they sink in the

fluid, whilst striæ of a milky hue float in it. I am anxious, particularly, to direct your attention to the expectoration, as by closely observing it, in conjunction with the symptoms, you will be convinced that the presence of pus in the sputa is by no means essential as a characteristic of tubercular phthisis. Pus may be formed by inflammation of the mucous membrane, where no appearances of phthisis are visible; it is the ash-gray masses, of a globular form, and the whitish striæ, or the fragments which accompany them, that chiefly point out the presence of softened tubercles and pulmonary excavations.

It has been said that the gastric cough which may be mistaken for phthisis, is readily distinguished, among other symptoms, by the tongue being red at the edges, slightly furred in the centre, and dry in the morning; but this state of the tongue has existed in our patient, and although the tongue is now clean, less red, and in every respect more natural than it was, yet this condition of it is to be attributed to the correction of the gastric symptoms. Indeed in every pulmonary affection, this condition of the tongue is always more or less present, and indicates the sympathetic connexion which exists between the bronchial membrane, the villous coat of the stomach, and the tongue. I shall say nothing about the symptomatic cough which often attends irritable states of the liver and other abdominal viscera; in the latter it, not unfrequently arises from the presence of worms; but in worm cases there is none of that form of expectoration which would lead a careful observer to mistake this for the cough of phthisis.

As yet no streaks or spots of blood have appeared in the matter expectorated by our patient; and this is one more added to the numerous proofs that daily experience presents, that hæmoptysis, to use the language of Dr. CLARK, may be regarded "as among the consequences of the pathological condition of the lungs which precedes and accompanies the development and progress of tubercular disease:" that it "is rarely, if ever, a cause of phthisis;" and may "in general be regarded as an indication of the presence of a tuberculous disease in the lungs." Your future observations, nevertheless, will prove to you the fact that hæmoptysis may be the result of a plethoric condition in those who are predisposed to tuberculous disease, and, consequently, that this condition of habit may be the exciting cause of both hæmoptysis and of phthisis.

I would, likewise, direct your attention to the state of the breathing, which has rapidly become oppressed. In answering a question, this embarrassment of the respiratory organs is rendered very obvious; it requires an evident effort, which is invariably followed by an increase in the respiration, amounting almost to what may be denominated *hurried*. But in many cases of phthisis this hurry of the respiration is very striking, and differs little from that which, in a moderate degree, always attends muscular exertion.

In this case, the morning perspirations are not very severe, but they are augmenting, and by no means tend to the formation of a favourable prognosis. It is an object of some interest to ascertain what changes this derangement of the function of the skin produces on the excreted fluid, and to determine the distinctive characters between it and healthy perspiration.

I have already stated to you, Gentlemen, that, in the case under consideration, I have no doubt of the existence of an hereditary predisposition to tuberculous disease. No subject connected with the practice of our profession is more difficult of explanation than this hereditary transmission of disease; but it is a fact, established by correct observations, that a deteriorated state of health in a parent, arising from any cause, amounting to a case of cachexia, may produce tuberculous predisposition in the offspring. Indeed, there can be no doubt that children are born with what may be termed "tuberculous cachexia;" and, in such instances, numerous causes may concur to determine the disposition of tuberculous matter, either in the mesentery or in the lungs. I am disposed to agree with those writers who affirm, that very few children are born with tubercles actually formed in the lungs.

With regard to the treatment that has been pursued in our patient's case, little has been done with any other view than to improve the digestive organs; and so far he has benefited. Indeed, so hopeless does any attempt to cure phthisis appear, that we are apt to stand idle spectators of the disease, and to contemplate its progres, its ravages in undermining the citadel of life, and its triumph in the overthrow, without taking a single measure to avert the danger. The question of the probability of cure hinges upon two considerations, namely, are tubercles capable of being resolved? Is a tubercular ulcer or a pulmonary excavation capable of being healed? My experience does not permit me to reply in the affirmative. Leaving the question, therefore, as it is, and having attained our object in improving the digestive function in the case before us, upon what principles should we proceed to palliate its severity, and prolong life, if we cannot cure the

disease? The most obvious indications which we have to fulfil are, to lessen inflammatory action, and to allay general irritation. Now, for answering the first of these, bleeding presents itself, but the debility which exists prevents this from being carried to a great degree; and, consequently, you may have remarked, that neither of the bleedings which have been resorted to has exceeded six ounces; and I should have felt disposed to repeat these, at short intervals, had not the exhaustion which followed each venesection prevented me from proceeding. In some habits the very opposite condition is the result of small repeated venesections; a state of plethora is induced, and an evident predisposition to inflammatory action established. In either case, I should feel disposed to proceed with caution. Were there, however, much fixed pain in the chest, I should order either cupping or leeching; but, as this is not the case, I mean to try counter-irritation; and, for this purpose, to form blisters with the lunar caustic, so as to pass in rapid succession over the whole of the thorax, not waiting for the cicatrization of one blister before another is formed. Blistering with nitrate of silver is an East Indian practice; it is produced by rubbing the stick of caustic moderately over the part to be affected, first in one direction, and then, by crossing the former applications, in another. In a short time a blister is formed, and if this be punctured at the termination of six or eight hours, to permit the escape of the pus, it heals without any dressing; and another blister may, in the same manner, be immediately raised, adjoining to the former. The advantages of this counter-irritant agent over ordinary blisters appears to me to be considerable. Its influence is more rapidly exerted; the lunar caustic is not absorbed like cantharides; it is, therefore, less generally excitant than the plaster formed of those useful insects; and, for the same reason, it is preferable to croton oil, and some other suppuratives, which have been employed.

I can see no advantage that can be derived from sudorifics, and to lower an already debilitated frame, without some equivalent advantage, I should regard as bad practice. I am, nevertheless, very desirous of trying the tartar emetic in moderate doses, as I am of opinion that the salutary influence of this preparation does not depend on its entering the circulation, but in its extended operation as a counter-irritant on the whole mucous coat of the intestinal canal, deriving, as it were, from the lungs, and diminishing action there, by setting it up in a temporary manner elsewhere. This, however, I shall not immediately resort to, until the condition of the patient, in point of strength, is a little improved.

To allay irritation, I have much confidence in conium, gradually increased to the utmost dose which the patient can bear. It is much less apt to favour night perspirations than opium or any of the salts of morphia. Our patient is at present taking the decoction of Lichen, Icelandicus, with diluted sulphuric acid, as a tonic; but in proceeding with the plan which I have sketched, I shall cause the strength to be supported by light and nutritive diet, and small doses of the tincture of muriated iron. My reason for selecting this preparation of iron, is the facility which it affords of combination with muriate of morphia, which, in small doses, stills the cough better than any other narcotic.

There is another case of disease, having a close affinity to tubercular consumption, which is equally fatal, in the man named Maurice Welch; but it is not my intention to bring that case before you at present, for reasons which I fear will too soon become apparent, and afford a more decided mode of explaining the nature of the disease.

CONGESTIVE CEPHALALGIA.

A case of considerable interest and instruction is that of Ellen Langridge, who was admitted on the 21st of November. The account which she gave of herself was the following. On the Sunday prior to her admission, she was attacked with a violent pain of the head, and throbbing at the temples. Leeches were applied without any relief being afforded. She can assign no cause for the attack. Her bowels are habitually costive. The pulse, on her admission, was 100, and oppressed. The pupils were dilated, and impatient of light; the tongue was slightly furred; and she stated that the catamenia was regular. She has suffered, at intervals, from palpitation, and pain at the chest.

These symptoms were sufficient to lead me to regard the case as one of *congestive cephalalgia*, a disease which often affects the delicate and irritable; and thence, as in the case before us, it appears more frequently in women than in men. Its exciting causes are, emotions of the mind, irregularities in diet, or in the condition of the bowels. Now these are more likely to produce in such individuals an increased impetus of blood to the head than in the more phlegmatic; and as the quantity of blood in the arteries is augmented, and that in the veins necessarily

diminished, under such circumstances, owing to the nature of the cerebral circulation, congestion must necessarily take place. This causes heat and excitement; and, from the disturbance of the brain, the headach which ensues is often accompanied by flashes of light, floating phantasms before the eyes, and, occasionally, with singing and other noises in the ear. The feet also become cold, and the circulation, from being quick at first, is afterwards languid and oppressed. When these symptoms are not relieved, a morbid condition of the brain ensues, and the disease assumes a new character, and is more difficult to remove. The treatment of such cases consists in fulfilling two distinct indications:—

1st. To relieve the cerebral congestion.

2ndly. To subdue, by augmenting tone, the susceptibility of nervous impression, so as to prevent its recurrence.

In endeavouring to fulfil the first of these indications in this case, the patient was cupped behind the ears; and the bowels were freely opened with a pill, containing gr. viij of calomel, followed by a strong cathartic. This is a large dose of calomel; but I have already pointed out to you the great influence of such doses in allaying irritability of the stomach; and in affording that stimulus to the common orifice of the biliary and pancreatic ducts in the duodenum, which is required for emptying those organs when they are overloaded. Much bile and pancreatic juice are poured into the gut, and placed in a situation to be swept away by the subsequent purgative.

On the 26th our poor patient had derived little benefit from the treatment adopted; the head was, therefore, ordered to be shaved, and an evaporating lotion applied over it. Cold, in such cases, does not operate in so limited a manner as is usually supposed; it acts upon the rest of the body, by nervous sympathy, abating general excitement; and, probably, more is to be attributed to this than to any abstraction of caloric which the evaporating fluid can carry off. I fear, Gentlemen, that this case may prove to be one of those which often resist every means of management; and seem, at length, rather to wear themselves out than to be cured.

I have seen tonics salutary in such cases; but in the present instance, the excitement is too great to permit their employment. You should, however, be aware that excitement is not always a legitimate reason for not ordering tonics; and nothing is of more practical importance than the fact that tone and excitement are two very opposite conditions of the system.

EJECTION OF A STONE

FROM THE

RIGHT BRONCHUS, BY EMETICS.

To the Editor of THE LANCET.

SIR,—Should the following uncommon circumstances be considered to possess sufficient professional interest, I have to request their insertion in your valuable Journal. I am, Sir,

Your obedient servant,

CHARLES J. H. RAY.

Tonbridge, Dec. 21, 1834.

Jonathan Bumpstead, a delicate-looking boy, ætat. 10, was on the 20th of August in perfect health. While rolling upon the grass that day, in sport, and having a stone in his mouth, he attempted to call out, when the stone suddenly disappeared from the mouth, and produced by its new position an immediate sense of suffocation, succeeded by frequent and violent paroxysms of coughing, dyspnœa, profuse perspirations, and complete inability to lie in the horizontal posture. Several practitioners were forthwith consulted, and aperients with other means were prescribed, in the hope of obtaining the passage of the stone, but without effecting that object, or in any way mitigating the distressing symptoms. I first saw him early in November, about twelve weeks after the occurrence of the accident, and feeling much interested in the case, from the preceding history, I was induced to pay attention to it, as it was then evident that his constitution could not long bear up against such continued suffering. He was much emaciated, had repeated fits of coughing, with copious frothy expectoration and dyspnœa; he was unable to run, or to walk fast, appeared much distressed in ascending the stairs, and could not lie in the horizontal posture; his pulse was small and frequent; tongue whitish; bowels regular; urine scanty and high-coloured; perspirations profuse. He complained much of thirst, and felt a disinclination for nourishment. On auscultating either side, the loaded mucous rattle so characteristic of sub-acute bronchitis was distinct; but in the right superior thoracic region a peculiar loud wheezing, as though caused by some uncommon obstruction, was evident. I marked the exact situation on his chest, with ink, where this peculiar sound appeared to originate, and on frequent subsequent explorations found it to be stationary. Considering the horizon-

tal position of the body at the time of the stone passing from the mouth to have been favourable to its entering the trachea, with the inclination of that passage to the right side as it enters the chest, as also the increased size of the right bronchus when compared with the left, I felt satisfied that it must have taken that uncommon course, and was there producing the peculiar loud wheezing which I have described. I proposed a perseverance in the use of emetics, as alone likely to prove serviceable. This was willingly acceded to, and he commenced with the tartrate of antimony and ipecacuan, in full nauseating doses every other morning. Finding, however, that these produced much after excitement, I discontinued their use, and suggested the employment of the sulphate of zinc, which answered my intent equally well, without producing the same unpleasant consequence. This plan was persevered in every other morning, for nearly three weeks, when, after having taken a full dose attended with violent retching, he ejected the stone, to the comfort and delight of himself and his friends, who instantly apprized me of the circumstance, bringing the stone with them, which I have now in my possession. In size and shape it much resembles a small date stone, and weighs half a drachm. The following day, on applying the stethoscope over my *ink mark*, I could discover no obstruction as before the ejection of the stone, nor any variation from the opposed side. He complained of considerable heat in the chest after the stone was removed, but he can now lie in the horizontal posture, run up-stairs without inconvenience, has little or no cough or expectoration, and appears to be rapidly convalescing, after about 16 weeks of severe suffering.

"VERY OLD MEN."—At Polock, in Lithuania, in October last, a man died aged 188. He had seen seven monarchs in Russia, and served Gustavus Adolphus during the thirty years war. At 93 he married for the third time; his wife survived the marriage 50 years, and bore him several children.—*Russian Paper*, Nov. 29. To this paragraph the following remarks, by a writer in the *New Mo. Mag.* for Dec., may appositely be added. "Even where cases of longevity seem to have been carefully investigated, in the majority of instances they have been found grossly exaggerated. I have before me a list made out with astonishing labour and research, which contains 1750 cases of age exceeding 100 years, and yet, on severe scrutiny, none but the most vague foundation is afforded for the alleged periods of birth and death."

OBJECTIONS TO THE USE OF

MERCURIAL OINTMENT

IN

ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—There is an instability in medical practice as regards the use of certain remedies, which I conceive goes far to justify the frequent remark that there is a fashion in medicine, as in all other things. I am sure that most practitioners will acknowledge that the less we are biassed by fashion, and the more we are governed by experience, the more we shall have to congratulate ourselves on our success in the practice of an arduous and deeply responsible profession. If it be our desire to draw the line of demarcation between the practice of our art by scientific men, and its malpractice by unprincipled quacks, we shall be slow to abandon tried and efficacious remedies for novel and insufficiently proved ones, and which, although they may chance to produce the desired effect at the time, may also give origin to consequences which are not to be contemplated without dismay.

I am induced to make these remarks from finding that the application of mercurial ointment in erysipelas has now become the *fashion*, almost to the exclusion of the nitrate of silver and tartarized antimony. It is not my intention to question the efficacy of this new therapeutic agent, seeing that some surgeons of eminence have bestowed upon it unqualified praise. My only object is to inquire what advantage it possesses over the nitrate of silver and salt of antimony, which have been tried and not found wanting.

It is but right, I think, to state what appears to me, at present, to be the objections to the use of mercurial ointment in this certainly formidable disease.

From the instructions I have received, coupled with what I have myself observed during a fifteen years' pupilage and practice, I have ever endeavoured to keep in mind the disadvantages as well as the advantages arising from the employment of the preparations of mercury, and have invariably made it a rule not to place the system under the influence of mercury (I may be in error) unless there should be a decided necessity for doing so. I contend, as it has been contended before, that the injudicious administration or application of mercury, not only in venereal but also in other diseases, has been the cause of incalculable mischief, and that much of the misery and wretchedness we meet with in

practice can be decidedly traced to its use, or, rather, its abuse. Now I certainly cannot avoid thinking that application injudicious, which, in curing the disease, necessarily (generally speaking) excites profuse salivation, and produces a train of other disagreeable symptoms, when by the use of other remedies, the action of which is equally certain, and is as quick, those unpleasant consequences which are so much to be dreaded from mercurial agents may be avoided.

I have had the good fortune to see numerous cases of erysipelas treated by the free use of nitrate of silver, and many by the tartarized antimony, and I have never found them to fail unless where the constitution had been, previous to the attack, broken down, and, consequently, unable to withstand a new shock. Of those cases in which I have chanced to see the ointment used, a few undoubtedly recovered, but the majority went the way of all flesh. In the cases reported under the head "Richmond Hospital," I find that the nitrate of silver was had recourse to; I cannot see, therefore, how all the merit should be due to the ointment. In each of those cases profuse salivation set in. According to Magendie, when the epidermis is in a state of *integrity*, substances may remain in contact with it for a considerable time without being introduced into the economy. The epidermis in erysipelas not being in a normal state, but appearing completely engorged and altered, the imbibition and absorption of the mercury quickly take place, as is proved by violently profuse salivation supervening, as it generally does, in so short a time. In six cases of erysipelas which occurred in an hospital in this city, four were treated with mercurial ointment, and two with tartarized antimony, followed by tonics. Three of the first died; one recovered. Those to whom the ointment had not been applied, recovered by one day sooner. In all the former cases the sufferings from ptyalism were great. The constitution must, of course, be rendered liable to an attack from the usual consequences of having the system saturated with mercury.

I therefore do not see what *advantages* the mercurial inunction possesses over the remedies before in use. On the contrary, it appears to me that even when it does perform a cure, the consequences which may at one time or other arise from its well-known effects, will be as bad, if not worse, than the original disease. I am, Sir, your obedient servant.

CORRY LAUGHLIN, M.R.C.S.,
Westd. Lock Hospital.

Dublin, Dec. 16th, 1834.

CASE OF

DIABETES MELLITUS,

COMMUNICATED, WITH REMARKS, BY

RICHARD HUTCHINSON, M.D., *Physician to the Nottingham Infirmary.*

THE chemical changes which take place in the blood, have only recently received that degree of attention which their importance demands. The humoral pathology is beginning to emerge from the darkness in which exclusive solidism has concealed it; but still how little has been accomplished! We remain in doubt, even yet—whatever may be the exciting cause of cholera or typhus fever—whether the first impressions are made upon the circulating mass, or whether the pathological results of irritation or inflammation observed after death, are primary or consequent.

Local irritation, or inflammatory action, it is commonly assumed, is sufficient to explain every variation from the healthy standard, without taking into consideration the state of that fluid by which the solid parts of the body are supplied and nourished; yet how inadequate are these to explain a whole train of disorders! The introduction of the miasmatic cause of intermittent fever cannot inoculate the spleen; neither can that of typhus immediately impress its morbid actions upon the ilium, and the arachnoid covering of the brain only; yet these are the principal lesions evident after such disorders, and the exclusive advocates of solidism consider them as their cause.

The profession are indebted to many able chemists for analyses of the blood, prosecuted in consequence of the existence of cholera in this country. In endeavouring, however, to investigate its origin, much has not yet been effected. Still the inquiry has opened a vast field for future experimentalists. It is for the consideration of these physiologists that I submit the following case of diabetes mellitus, believing that an inquiry into the changes which frequently occur in the general mass of the circulating fluid, may lead to a more rational treatment of that disease, and more fortunate results, than its history at present affords. The case occurred in the hospital of this town, in the practice of my colleague, Dr. DAVIDSON, and is as follows:

CASE.

Thomas Moss, ætat. 30, labourer, of Hucknall, recommended by Lieut.-col. Wildman, attended first of all at the In-

firmary on Dec. 11th, 1833. Has been ill two years, with diabetes. His appetite is keen; his bowels are confined; the tongue is clammy and white; skin dry; and there is much emaciation.

℞ *Ext. Colocync. Comp.* gr. x; *Ol. Crotonis* gtt. ss. Ft. pil. ij o. nocte sumend.

A week after, no improvement had taken place. Capt. *Liquoris Potassæ* gtt. xxx, ter die.

Dec. 31. ℞ *Inf. Gent. Co.* ℥j ter die.

1834, Jan. 1. Admitted to-day into the hospital, and was ordered to have a warm-bath. Bibt. *Sodæ Carb.* ℥j c. *Aquæ* 0ij.

4. He thinks that the quantity of urine is rather less. Let him have strictly animal diet.

℞ *Inf. Gent. Co.* 0j; *Sodæ Carb.* ℥j; *Acid. Hydrocyan.* gtt. xlviii. M. capt. f. ℥j ter die. Omit. alia.

7. The quantity of urine passed in twenty-four hours (from the 3rd to the 4th inst.) was found to be four gallons and three pints (3½ pints). Its specific gravity has not been ascertained. The quantity has not been accurately mentioned since, but is rather less. He complains of pain in the lumbar region on both sides. Let him be cupped on the loins. Rep. *Inf.* c. *Acid. Pruss.* Bibt. ad libitum. *Sol. Sodæ Carb.* (ut antea præscript.)

8. Has passed three gallons of urine since yesterday morning. His appetite is almost insatiable. He has eight ounces of cooked meat three times a day. Let him have a pound of meat for dinner.

10. Has been frequently purged, with griping, and complains of sickness. Omit. pil. Cont. alia.

12. Has much pain over the whole of the abdomen, particularly across the hypochondriac and epigastric regions. The abdomen is full, and rather tense; the bowels very open. Mitt. sang. brachio ad ℥xii. Capt. *Pulv. Doveri* ℈j. Omit. alia.

15. The quantity of urine was reduced to two gallons during the twenty-four hours, from the 12th to the 13th inst. He continues to have some pain in the left side and epigastrium; he has diarrhœa. The serum of the blood taken on the 12th exactly resembled milk in colour and smell.

℞ *Mist. Crot. Co.* 0j; *Acid. Hydrocy.* ℥j; *Tinct. Opii* ℥ij. M. Capiat ter in die.

16. Quantity of urine reduced to two gallons in the last twenty-four hours; has very little pain this morning; bowels have not been moved; skin dry. Adhibeatur balneo caloris 100°, ter in septimana. Cont. alia.

18. Says there has been much pain, with distention of the belly, but this morning he is free from pain, and the abdomen is soft. He has less thirst. Urine two gallons in the last twenty-four hours. Bowels not moved since.

℞ *Mist. Magnes. Co.* f. ℥ij, statim sumend. Fricet. epigast. oleo crotonis, et sumat horæ decubitus, *Pulv. Doveri* gr. x. Cont. alia.

20. Complains this morning of much pain all over the epigastric region, which he says is increased by taking liquids, but not by solid food. Urine two gallons in twenty-fours. Bowels not open since the 18th; tongue white, brownish-red at apex; pulse frequent, rather weak. Rep. V. S. ad ℥viii. Cont. alia.

22. Still complains of pain in epigastric region, but it does not appear to be increased by pressure. Quantity of urine in the last twenty-four hours rather more than two gallons. The blood taken from the arm on the 20th is said to have resembled a mixture of Ferri Subcarb. and water, whilst flowing. Yesterday there was no separation into crassamentum and serum, the whole having coagulated, and the upper surface being of a rich cream colour, with a few spots of the red colour of blood. Bowels costive. Capt. statim *Mist. Purg.* f. ℥ij.

℞ *Mist. Sodæ Sulph. Co.* 0j; *Acid Hydrocyan.* ℥j. M. Capt. ℥j, 4tis horis.

℞ *Pulv. Doveri* ℥ss, h. s. o. n. Omit. alia medicamenta.

25. Quantity of urine less than two gallons in the last twenty-four hours, Rep. *Mist. Purg.* Cont. alia.

26. Is suffering from severe headach; pulse 140 in the erect posture, 68 in the recumbent; tongue white, red at the tip; complains of pain at the stomach. Capt. statim *Pulv. Ipecac.* ℥ss, and when the vomiting has subsided, *Hydrarg. Submur.* gr. v.; *Ext. Colocyn. Co.* gr. x.; *Mist. Mag. Co.* f. ℥j, 4tis horis. Should the headach not be materially removed before morning, let him then be cupped at the back of the neck. Common diet. Omit. alia.

27. Eight a.m. Has continued vomiting since the ipecac. was taken, and has had violent pain in the epigastric region, which still continues, with occasional remissions. The pills, therefore, were rejected, as likewise were five grains of the pil. Sapon. c. Opio. Had a common glyster at three a. m., which brought away a large quantity of dark, offensive, scybalous feces. His tongue is dry and brownish-red. Has much thirst, but has made less water. Let a sinapism be applied to the epigastrium.

℞ *Magnes. Subcarb.* ʒij; *Succ. Limonis* f. ℥ij; *Aquæ Fontanæ* f. ℥vj; *Acid. Hydrocyan.* gtt. xii. M. Capt. f. ʒiss, 3tis horis. Rept. enema. Omit. alia.

Two p.m. Continues to suffer from violent pain at the scrobic. cordis, and every thing taken is immediately rejected. Pulse small and frequent. Two grains of opium taken an hour ago were immediately vomited. Let him be cupped immediately.

℞ *Inf. Cascaril.* ℥vj; *Acid. Hydrocy.* gtt. xii. M. capt. f. ʒj, 4tis horis.

He continued in this state until the 1st of February, when he died.

Autopsy, Twenty-Four Hours after Death.

The body was not so much emaciated as is generally the case in diabetes; no part appeared to be morbidly developed. Upon opening the body, the blood was found very like a mixture of milk and red ochre. The right lung was healthy, the left rather hepatized, from previous disease. The heart was nearly full of white coagulum, and rather softer than natural; in other respects it was healthy. The liver was rather large, but healthy. The internal surface of the gall-bladder was rough, and of a whitish appearance. It was full of greenish and nauseous-smelling bile. The mesentery and omentum were very much congested with dark venous blood. The mesenteric glands were enlarged and hardened. The external surface of the stomach and intestines was very much congested with venous blood. There was no particular appearance about the internal surfaces, except that the mucus was more glutinous than natural. The spleen was natural. The pancreas was hardened, and at the pyloric orifice of the stomach there was imbedded in the cellular structure a mass of coagulated blood, fibrinous in appearance, something like clotted hair, about to decompose. It was rather larger than an egg, and could easily be separated into distinct fibres. It had no connexion with any large bloodvessel. The arteries and veins of the kidneys were natural, but the kidneys themselves were about twice their natural size, rather soft. The tubuli were dilated, as also were the ureters, otherwise they were natural. The bladder contained about a quart of saccharine smelling urine; its coats appeared to be very much thickened and corrugated, as though it had been much distended.*

The appearance of the blood was most extraordinary, the serum being of a cream white, the small portion of crassamentum resembling molasses more than anything else, and not coagulating. Upon analysis the serum was found to contain a very large proportion of oil in the form of stearine, with a small quantity of elain. This oily principle was in such excess as to have become deposited in the crystalline lens of both eyes, so that for about three months before his death the patient was blind from cataracts.

Remarks.—Sugar, in its uncombined state, has not been detected in the blood of a diabetic patient, however large may have been the proportion of saccharine matter contained in the urine, and hence an argument has been raised against the blood being primarily affected; but when we see its elements existing so abundantly, and when we observe the mysterious proofs of secretion, called into action at certain periods only in the mammæ, of the female, and continually going on in the kidneys, and such opposite results produced by means apparently so simple, we must not attach much importance to an objection expressive only of our ignorance of the manner in which the sugar is eliminated.

No case of diabetes is recorded, in which any great organic change has occurred in the kidneys, and it is in them alone that local irritation has been considered as sufficient to produce the saccharine urine. Enlargement, wasting, flabbiness, hardness, every opposite state, to a greater or less degree, all tending to the same results, have been repeatedly pointed out. These are all, possibly, the effects of irritation arising from the call for active secretion made on them, rather than a primary affection in these organs, productive of general disease. Has the treatment of diabetes as a local affection been successful? Local depletion, local counter-irritation, all general remedies having, or being supposed to have, a direct influence upon the kidneys, have been repeatedly and vainly tried, and such, doubtless, will continue to be the case, whilst we remain in ignorance of the seat of the disease—that it depends upon an alteration or degeneration from the healthy state of the blood itself, is I think fairly to be presumed, but what this change may be, we are not at present in possession of sufficient facts, obtained from the chemist, in his experiments with reference to the human body, to determine.

Nottingham, Dec. 16th, 1834.

* It is not entered in Dr. Davidson's book, but between the 28th of January and the time of his death he used, as a topical application for the pain in his stomach, the following lotion, with no good effect however. ℞ *Potassæ Cyanureti* ʒss; *Aquæ Distil.* ℥i. ℿ. Ft. lotio. sæpe utend.—J. C. C.

FRACTURE OF THE SKULL,

WITH DEPRESSION AND LOSS OF BONE.

To the Editor of THE LANCET.

SIR,—The following case of fractured skull occurred to me, at a period during which I had the charge of my brother's practice in this town. As it is not an uninteresting case, I should feel obliged by your inserting it in your valuable Journal. I am, Sir, your obedient servant,

JOHN GILL,
Madras Medical Department.

Wolverhampton, Dec. 14, 1834.

Case.—On the 23rd of October, J. Broomhull, ætat. ten, was struck on the head by the hand of some machinery, and picked up senseless. Half an hour after the occurrence I saw him, and found him cold, and apparently lifeless. On examining the head, I discovered, in the upper and middle part, a depression of some extent, and a jagged uneven wound, about an inch and a half in length, through which a portion of brain was escaping. The margin around the depressed bone was well defined. The pupils were largely dilated, and without any contractility; the pulse was hardly to be felt; the skin cold and clammy. Stimulants internally and externally were employed, and in about an hour after (during which time the head was shaved), assisted by an eminent practitioner in this town, Mr. Thompson, I made two large flaps, the apices of which were at about the central part of the sagittal suture, their bases taking a sweep from the right temple to the left frontal protuberance. On reflecting them back, a large triangular piece of bone was discovered, detached, and depressed, with its anterior angle driven through the membranes into the substance of the brain. After a little trouble this portion was extracted. It was then found that the right parietal bone was so driven from its connexion with the frontal, as to be firmly wedged underneath the latter. However, by using a strong pair of forceps, it was elevated, and placed in its proper situation. Another fissure was then discovered on the left side, running down towards the frontal sinus, but without depression. In making these incisions a few small arterial branches were divided, but did not require tying. After this the parts were brought together by means of sutures and adhesive plaster, and the boy was removed from the mill to his own residence. From the time he had been picked up, he never uttered a groan, or moved, but during the operation he frequently attempted to lift his hands to his head. The body became warm and the pulse rose, but no appearance of sensibility returned. Strict quietness was enjoined. He dozed during the greater part of the day, and frequently lifted his hands to his head. In the evening the pupils acted slightly. He had not passed either feces or urine during the day.—Habt. *Hydr. Subm.* gr. x. h. s.; et mane *Ol. Ricini* ʒss; Applic. *Lotio Spirit.* capiti.

Oct. 24.—Dozed the greater part of the night; is constantly drawing up his hands to the head; passed urine in the bed; bowels not moved; in other respects the same as last evening.—Adhib. *Enema Purg.*, et repet. si opus fuerit; Habt. *Hydr. Subm.* gr. x. h. s.

25th.—Continues much the same. Not until several enemas were administered were the bowels moved. During the evening of this day, for the first time since the accident, he opened his lips, and commenced singing, since which time he gradually became more sensible of his situation.

26th. The wound was dressed. The greater part of the incisions were healed by the first intention, and the original wound was suppurating. Cataplasms were made use of during the first two days, but after that time, the part assuming a fungoid character, they were discontinued, and compress and bandage were substituted. Mild aperients were occasionally administered.

It is now seven weeks since the accident was received. The wound has quite cicatrized, and the boy is apparently as well as ever. For the first three weeks he passed his excretions involuntarily, and even at the present time his urine runs from him when asleep. His memory is slightly impaired; he forgets things which he has said or done a few minutes before, but recollects perfectly well anything which has occurred a few days back.

The piece of bone taken away appears to be a part of the left parietal, one side forming a portion of the sagittal suture. It measures from its longest base to the summit one inch and one-third; the former being two inches and a half.

WE have been requested to contradict a bit of invention which found its way into print last week in some of the London newspapers, stating that "the cholera" had destroyed some convicts and a medical gentleman at Portsmouth.

CASE OF

TUBERCLE, SCIRRHUS, &c.

OF THE

CEREBRUM.

By THOMAS GORDON HAKE, *M. D., Senior Physician to the Brighton Dispensary.*

THOMAS D****, at the age of forty-two, became a patient at the *Brighton Dispensary*. His health appeared to be unimpaired, except that he complained of pain extending from the right brow to the posterior part, and on the summit of his head. His eyes also partook of this intense pain, and seemed somewhat started from their sockets. He never slept, but remained all night awake, and sensible to his agony. This was in August 1834. Three or four years ago he had suffered pain in his head and eyes, but had continued to labour in the capacity of a gardener at the park, without complaining much, although with evident lowness of spirits. It has been suggested, though without confirmation, that he might have been injured from toiling in the sun with his head uncovered. Twenty years since, while inebriated, he fell from his chair, and received a severe blow on the back of his head, but without experiencing any succeeding inconvenience. All the information that could be obtained regarding parentage, was, that the father, towards the conclusion of his life, lay in the same state as the son.

T. D. had been a very muscular man, had enjoyed an acute understanding, blended with ingenuity, and a good moral character.

In about a week after his present attack, by means of depletion, counter-irritation, and internal remedies, the pain in the head was subdued, the eyes only remaining affected, and these, he said, felt as if they were being pulled out of his head; and he accompanied the expression with a peculiar and desperate action of his fingers, as if he were himself tearing his eyes from their sockets. While the pain in the head lasted, it had been attended by so much debility, that he was obliged to keep his bed. On its remission he was able to rise, but the interval was of but short duration, and in a few days the pain and accompanying weakness returned.

The old complaints were now all re-established, and followed by pain at the præcordia. From this time the body became emaciated, and at length ulcerated in many parts, from long-continued recumbence. The scrotum and penis were lacerated dreadfully, from violent and repeated attempts at masturbation. The appetite remained good until nearly the termination of life; there was thirst, great and continual; but the patient imagined both these functions to be more powerful than they really were. The gums became white a week before death. The tongue was dry; and at the apex and centre was of a deep-red colour, but covered with brown typhoid *enduits* on either side, and towards its base. It was swollen, could only be partially protruded, and that with a tremulous effort. Mastication as well as deglutition became difficult as the other symptoms progressed. There was pain in the stomach after taking food, and, especially at this time, flatulency and borborygmus. The bowels were always confined; the stools of a blackish or brown colour.

The pulse was strong, quick, large, and equal, until, finally, it became almost imperceptible. The veins were full, the blood drawn from the arm, as well as that abstracted from the temples, was dark, cupped, buffy; and serum entered too plentifully into its composition.

The auricular systole of the heart was feeble, dull, and indistinct, both at the ribs and sternum. The sound afforded by percussion at the chest, especially on the left side, became dull as the disease advanced; and the respiratory murmur yielded gradually to the crepitous rale.

The respiration, free at first, became more and more difficult, and was performed at rare intervals, slowly, equally, and with pain. The cough, which prevailed ultimately, was rare, difficult, painful, dry.

The cutaneous exhalation was excessive; the mucus, as regards the tongue, mouth, pharynx, and intestines, diminished. There was an increase in the secretion of tears, but of saliva, sperm, and urine, a diminution. In the latter, which was high-coloured, there was always a deposit of a pink or white sediment.

This patient declared that during his whole life he had never dreamt. Five weeks after his last attack, carus set in, and, with intervals, continued until his death, which happened seven weeks from this time. Five weeks previously to this event a simultaneous loss of sensation and motion occurred in the left side, with involuntary evacuations. Taste and smell were not totally abolished until four weeks, nor vision until one hour previous to dissolution.

He had been troubled with cramps in the legs for many months. There was

constantly a nervous action of the right hand, as if engaged in self-pollution. For two months before death he often waved his hand to and fro in the air, as in the act of beckoning. He was convulsed generally, except on the paralytic side, two days before the final catastrophe; after this the right side of the mouth was drawn downwards.

His voice, tremulous and melancholy, ceased gradually to act, while he could still open his mouth when told to do so. He however muttered a few words before he died.

Generally, and perhaps always without erection or seminal emissions, he resorted to onanism, for the purpose, as he stated, of allaying his pain. Up to the time of his attack his power of coition was undiminished.

The expression of his face was indicative of extreme anxiety. Frequently he attempted to tear his eyes from the sockets, and to dash his head against the wall.

Post-mortem Examination.

On examining the brain, a considerable effusion of serum was found in the lateral ventricles. Within the left hemisphere, and situated between the anterior decending portion of the corpus callosum, and the anterior cornu, was discovered the side of a tumour, upon which was arranged a net-work of vessels. This tumour extended in an oblique direction downwards to the right hemisphere, being found again beneath the anterior cornu of the other side, and in the substance of the large extremity of the corpus striatum. It was bounded anteriorly by the corpora quadrigemina, and on a perpendicular incision being made through the tumour and between these latter bodies, it was found to extend backwards into the middle lobes, and downwards towards the base of the brain.

The structure of this tumour was in some parts purely tubercular, in others scirrhous, and was partly bounded by a soft, whitish substance, which was spotted and streaked with black blood. Irregular in shape, it might have been compared in size to an egg. It was attached in part of its circumference, by numerous fibres, to the surrounding encephaloid substance, or was gradually lost in the latter, by simple continuity. These fibres were most conspicuous about the pure tubercle, and in the midst of the tumour connected one tubercular portion with another, or these with the scirrhous substance. The former were yellowish, or of a dirty-white colour; the latter, reddish, yellow, semi-transparent.

The portion of this tumour, which projected into the middle lobe of the right hemisphere, an isolated tubercle, was bounded posteriorly and superiorly by an encysted coagulum, which was itself situated below the corpus striatum. The cerebral substance beneath this tubercular portion was of a yellowish colour and vascular, and covered anteriorly and posteriorly with black spots, similar to and continuous with the boundary above described. This portion almost reached the base of the brain. There was a ramollissement, or softening, together with atrophy, of the whole substance of the cerebellum.

In the chest the right and left lung were found congested, but especially the latter, wherein were discoverable to the touch, certain parts of a harder texture than the rest. These, on being examined, proved to be adhesions of cellular tissue of about the size of ordinary tubercle. On abstracting the congested blood, some of these tumours were found to be inflamed. The auricles of the heart were found dilated; the folds of the mucous membrane of the stomach were of a green colour; the whole tissue was softened; the muscular coat of this viscus was thickened.

The mucous membrane of the small intestines was pulpy to a considerable degree. The large intestines were inflated with air. The mesenteric vessels were gorged with blood. The liver and kidneys were in a state of congestion. Of the latter bodies, the left was the more gorged, and was almost disorganized. The coats of the bladder were thickened; the internal structure of the testes was of a yellowish colour.

Mr. Rugg witnessed the above case, and assisted at the dissection.

THE LANCET.

London, Saturday, Dec. 27, 1834.

Strange doings in some quarters! In the *Morning Chronicle* of Monday last, it was announced, that "some eminent me-"dical gentlemen had waited on Mr. "GOULBOURN, the Secretary of State for "the Home Department." Curious enough that the names of these "eminent" men were concealed. The object of the interview, of course, did not relate to a movement which afterwards took place in

the College of Physicians. Report states —and perhaps the rumour does not lie— that Sir Henry Halford, at a late meeting of the Fellows, announced that he, in conjunction with other "eminent" individuals, had consulted the new Ministers concerning medical reform, and that the great Duke and Sir Robert freely confessed, that a change of measures was necessary, and irresistibly called for, and thought that the Colleges should instantly commence setting their houses in order, with a view to avoid the stern interference of what might prove an unbending House of Commons. Having thus explained the views of the Ministers, Sir Henry, it is said, brought forward a resolution which accorded in spirit with the declarations of the Premier and his colleagues. The motion having been seconded, a ballot was taken, when, lo! Sir Henry and his adherents were found to be *in a minority*,—furnishing a sufficient proof that reform in all our medical corporations must be effected by proceedings *exterior* to those institutions, and must emanate from individuals who do not profit by the continuance of abuses.

There are other movements connected with this College, and the institution in Lincoln's-Inn Fields, to which we must advert on another occasion. We cannot, however, avoid mentioning that an odious scheme is on foot to deprive the minor schools of anatomy of a supply of subjects. We entreat of the schemers to proceed with their labours. If we mistake not, they will prove the first victims of their own guilty practices.

In the French Lancet of Thursday week (the 18th), we find the following piece of intelligence, which requires no comment:—

"M. Dieffenbach, surgeon to the King of Prussia, and to the Hospital of *La Charité* of Berlin, &c., lately paid a visit to the French capital, with a view of introducing more particularly to the notice of our surgeons some of his brilliant operations. During his stay in Paris, M. Dieffenbach visited certain distinguished French authors whose works are forbidden to be admitted into Prussia. On his return to Berlin, M. Dieffenbach (the last-mentioned fact becoming known to the authorities in that city) was dismissed from all his state and other public appointments."

The changes in medical education in Ireland, which we last week noticed, have been effected entirely at the expense of the corporate institutions. The pupils who now, but for the salutary influence of the press, would be idly and uselessly thronging the theatres of those establishments, are at present to be found dispersed among the private schools of Dublin. On the justness and advantage of such a division of the duties of instruction, it is unnecessary to offer a remark. Those only who, through obliquity of judgment, or the less venial offence of self-interest, insist that students are better instructed when crowded together in masses than when divided into smaller groups, and who contend that the various advantages accruing from the tuition of medicine should be enjoyed by a few, can profess to doubt the propriety of the division. It is not for us, who have so often refuted the opposite doctrines, to stop to refute them again. Besides, we are at present engaged in the agreeable task of showing that our refutations have already obtained the approval of the medical profession, for of this the facts we state are so many proofs. In what proportion the secession of students from the old schools has respectively served the new schools of Dublin, it might be invidious to indicate. As long as the latter have patentee-rivals

and the present medical code to struggle against, any strictures of the press which might tend to create disunion among them, or to expose them to the willing hostility of their corporate enemies, would be an unfair exercise of our power. There are, however, some features in the management of these establishments which we cannot approve, and on which, were they on an equality with their opponents, we should certainly animadvert. Amongst numerous competitors, there will always be some to abuse the fair freedom of competition. But the evil will, in general, effect its own cure; and the school, or the teacher that professes, but does not perform, or adopts unprofessional means of obtaining pupils, will soon find the expedient unprofitable, and derogatory to good character. On the whole, it is satisfactory to find that the principles of reform have worked so effectually in the Dublin private schools, and that, notwithstanding the disreputable opposition which they experience from the chartered schools, the eventual triumph of those principles is placed beyond a doubt.

The hospitals of Dublin present a still more remarkable instance of the silent progress of reform, than the schools of that city. Pupils were, up to a recent period, almost exclusively confined to what were called the "great" hospitals. *Stevens'* and the *Richmond* Hospitals were the foci of practical (?) instruction, which attracted towards them all those floating fees which happened not to be swallowed by the vortex of the indenture-system in the lesser resorts of pathological pursuits. The *Meath*, *Mercers*, and the *Jervis-street* Institutions, were attended by very few pupils, except the apprentices of those establishments. But the picture is now reversed; the former are comparatively abandoned, while the great mass of students is divided among the latter. *Stevens'* Hospital, as if by a scale of retributive justice which had apportioned punishment to the exact amount of abuse, is the institution which has suffered most in this regenerative disruption of the old haunts of monopoly. With all the advantages of its gigantic accommodations, and of ancient prepossession in its favour, its pupils have much declined in number this season. Nor is this at all to be wondered at, when its absurd and disreputable management is considered. The last appointment, in fact, completed the climax of its corruption, and its final abandonment by pupils then commenced. Enlightened students refuse to walk, it seems, in the wake of a lad through the wards of an hospital, and hold firm the laudable prejudice which has been awakened against attendance under the direction of one whose presence is a continual record of professional degradation. The little fly which attempted to criticise the architecture of the temple, when its limited vision could not even compass a frieze, was a faint emblem of the pigmy efforts of this official to comment on the multifarious morbid contents of this vast museum of disease. The wings of patronage may have carried him into the temple, but perch him on whatever point they may, the tip of his nose is the limit of his eye-sight, and such "teachers'" pupils will not attend, except in ignorance.

On the *Richmond* Hospital the arm of Reform has not operated to such a remarkable extent. The character for liberality and science, which distinguishes some of the officers of this institution, has preserved it from sharing the fate of its deserted contemporary. If, indeed, the duties of clinical instruction were performed in the manner of which the surgeons of this establishment are capable, and the fees of attendance were reduced to a scale commensurate with the means and prospects of medical students, the fame of this institution would stand high.

But it is the teachers in the "small"

hospitals, as they have been called, who have profited most by the disintegration of the elements of monopoly. Among these the *Meath* appears to have secured the greatest proportion of students. Liberated from the yoke of *prestige*, the pupils crowded to this institution in consequence of the early and meritorious attention of its officers to clinical instruction and pathological anatomy. On these departments of medicine much time and labour have been devoted by its physicians, and the result, as regards the attendance of pupils, has justified the maxim, that merit secures its reward. Both the *Jervis-Street Infirmary* and *Mercers' Hospital* are also, we understand, numerously attended this winter, but greater attention to clinical instruction is required in them to maintain the character which the existing state of professional feeling has obtained for those institutions.

There are two other hospitals in Dublin, which we have reserved for separate consideration, in consequence of the peculiarity of their circumstances. We allude to the *Lying-in Hospital* in Britain Street, and the hospital in Baggot Street, established some time back by the professors in the school of the College of Surgeons. The *Lying-in Hospital* of Dublin has been so fully described, and the abuses of its management have been so amply exposed, on former occasions in the pages of this Journal, that we deem it unnecessary to dilate on those topics at present. We shall therefore only state, generally, that the Dublin *Lying-in Hospital* was once a perfect *beau ideal* of every abuse which belongs to such establishments. Its great revenues were profligately squandered on purposes which were totally alien to the objects of charity, and its vast practice was almost entirely lost to science, or studied at a price exorbitant beyond all precedent in similar institutions. Being, however, for a length of time the only one of the kind in the city, pupils were compelled to comply with the extravagant demands of its conductors. Hence the mastership of this hospital was the most lucrative medical appointment in Ireland. The emoluments derived directly from students, and indirectly from patronage, were immense, while not one farthing of the funds were allocated to the uses of the establishment. Under these circumstances, a writer in this Journal, several years ago, pointed out the manner in which the evils of this national nuisance might be obviated by the institution of small lying-in hospitals, and of obstetric professorships in connexion with them. His views have since been fully carried into execution; and the results which he predicted have, even to the letter, been verified. The cannon of reform has reduced this gigantic fortress of monopoly, and the arrogant garrison have been compelled to supplicate for even a portion of "public support!" A late advertisement on the cover of this Journal, announcing the reduction of the admission fees, from twenty to ten guineas, including attendance on lectures, demonstrates in language which cannot be misunderstood, how complete has been the prostration of this stronghold of corruption; and even at the "reduced fees," we are assured, that pupils cannot be induced to fill the vacant apartments, and take up their abode among the colonnades of Bartholomew Moss! A more striking example of the beneficial effects of the discussion of reform could not be adduced; and if we are not much astray in our conjectures respecting the future fate of this establishment as a school of instruction, it will ere long have to make a yet further reduction in its terms; for, perhaps, in no department of medicine is Dublin better supplied with able professors than in that of midwifery. We desire not, however, to triumph by expressions farther over the fallen foes to medical reform in this quarter. Yet, al-

most any marks of exultation would seem defensible when the odium is brought to mind, which the venal scribes of the anti-reform press uniformly endeavoured to cast upon us for our exposure of the abuses which prevailed in this and similar institutions. We now shall be among the first to hail with delight the adoption of improvements in their economy.

The other hospital to which we have alluded was, but a few years ago, "got up," by some of the professors of the School of Surgery in York Street.

There are many circumstances connected with the history of this hospital, which require particular attention, as throwing light on the policy and principles of the party by whom it was established. We cannot, however, afford to be minute in our remarks on the present occasion. We shall, therefore, merely observe that the small fry of professors and demonstrators in the College, finding it impossible to be all accommodated with the character of hospital surgeons in *Stevens's Hospital*, resolved to wait neither for deaths nor for vacancies, but to establish an hospital for themselves, and thus come at once by a "royal road" before the public and the pupils of the College. They, accordingly, selected a place at a convenient distance from the College, got up the usual courses of "charity" sermons, advertised for pupils, and commenced the great work of opposition and revolt at the same moment. But one of the most remarkable features in the transaction was their adoption as a guide, in the execution of their project, the radical prospectus of a national hospital, drawn up and published some years ago, by Mr. KIRBY, before he had put on the College livery. Thus while Mr. HARRISON, Mr. JACOB, and "the rest," were actively employed in the support of monopoly in the discussions of the College in Stephen's Green, they were as sedulously engaged in fabricating an insurrectionary camp in Baggot-street, according to the revolutionary drawings and designs of the stern reform draftsman of Peter-street! The varlets! The institution, of course, has run the career which might have been anticipated under the circumstances in which it originated, possessing merely the name of an "hospital," without fulfilling one of those objects for which such an establishment should be conducted.

ALTHOUGH the political worthies who are denominated the "representatives" of the French nation have handed themselves over, bound, hand and foot, to the oligarchical government of that country, as the slaves of the "doctrine," there is one class of men in France, not perhaps their equal in numbers, but infinitely their superiors in every qualification which can grace the members of intellectual society, whose position and noble conduct demand from us, as journalists, especial notice. We allude to the medical officers of the Parisian hospitals, who have lately had an opportunity afforded them of evincing the high spirit of independence and resistance to injustice, which marks the profession as a body in almost all countries, and contrasts, in a striking manner, with the degrading pliability of the "*honorable* chambre." The example will serve to stimulate the indolent and strengthen the wavering and timid in our own country for a similar resistance whenever the dignity and privileges of the profession may chance to be assailed, either by the agents of legal authority, or the self-appointed autocracy of "councils," "governors," "committee-men," or any other of the "ignobile pecus," who too often play, *in petto*, at our public medical charities and other institutions, the part of legislatorial kings and peers.

The appointment of M. JULES CLOQUET

to the new clinical hospital in front of the Faculty of Medicine, having created a vacancy in the *Maison Loyale Santé*, the office of *surgeon* has been claimed, and, it would appear, with every chance of success, by the *physician* of the hospital, whose demand, preposterous as circumstances render it, is so supported by some individuals of high influence in Paris, that the Council General of Hospitals, instead of at once rejecting it, has referred the matter to the Minister of the Interior, and thus compelled the surgeons of the *Bureau Central* (who are chosen by *concours*, and from amongst whom, in justice, the new surgeon should be appointed) to address an energetic remonstrance to the Minister, showing the "absurdity" of the claim, and the manner in which the Council-General seeks to violate the law by demanding authority to appoint Dr. HERVEZ DE CHEGOIN to the office of surgeon. This reclamation is signed by MM. MONOD, ROBERT, GUERSENT, VIDEL, and DANYAN, surgeons to the *Bureau Central*, and is accompanied by notes, more or less energetically worded, addressed to the Minister of the Interior, by twenty-two—the whole of the number—of the hospital surgeons of Paris,—viz. DUPUYTREN, LISFRANC, SANSON, MARJOLIN, BERARD, PAUL DUBOIS, JULES CLOQUET, BAFFOS, ROUX, BRESCHET, VELPEAU, GUERBOIS, BLANDIN, MURAT, JOBERT, GERDY, BERARD jun., RICHERAUD, CULLIER, RICORD, LANGIER, and BOYER. We select the two following notes, as worthy of their respective authors:—

"The violation of the law of *concours*—a law so wisely instituted by the Council General itself, would give a fatal blow to medicine and surgery, as connected with the hospitals, and, consequently, would be most injurious to the patients who come there for treatment. It would, moreover, indicate to all those who desire to be admitted as hospital-surgeons or physicians, that they have less need of knowledge than of intrigue.

"DUPUYTREN."

"I share, completely, the opinion of my colleagues in the demand of our young *Confrères* of the *Bureau Central*. They demand, simply, a right which belongs to them, by the *concours* and by the regulations of the hospitals. Let the government take heed. This is an attempt to establish a fatal precedent, which would deliver up the unfortunate patients to ignorance and mediocrity.

"LISFRANC."

We have not yet seen the answer of the minister to this unanimous manifestation, but it is by no means improbable that he will refuse attention to the reclamation. A point will be gained by the reclaimants, either way, for nothing thrives so much by opposition as the demands of justice, and, eventually, the privileges now abused will be placed on a footing which will render abuse of them by individuals, impossible.

The Phrenological Journal, No. 42, for December 1834. Published Quarterly. Edinburgh.

THE apothegm of BACON, "Man the interpreter of nature," was inverted by GALL, and "Nature, the Interpreter of Man," became the fitting motto of phrenologists.

We have regularly received from the courteous editors of the *Phrenological Journal*,—one of the organs of the phrenologists,—the numbers of that periodical during the past and some former years, and are glad to find that it continues to pursue a steady and unbroken course, despite the little aid it has received from its brethren of the press. Its progress has not, perhaps, been distinguished by any of the great and startling triumphs which sometimes attend the efforts of periodicals, yet, if it have not of itself produced many converts amongst the disbelievers, it has done no little good as a means of encouragement and stimulation to its supporters. Still, it wants the tact and spirit which are essential to a periodical that is fighting an uphill battle.

Phrenology, however, unquestionably advances,—if not as a science, at any rate

as a creed. We doubt if it ever loses an advocate, and we are sure that it continually gains new ones,—if not rapidly, its friends should not wonder and fret. GALL was thirty years employed in laying the foundation of the science, beneath the insignia of which might appositely and wisely be inscribed,—"Have Patience."

The year is nearly ended, and a convenient time approaches for those who have not yet been subscribers to the *Phrenological Journal*, to add it to their literary purchases, and as our readers occasionally ask for some criticism in our pages by which to estimate the work, we take the number for December to afford them a specimen thereof. It contains, as the numbers generally do, much matter of interest to medical readers, as well those who are not phrenologists as those who are. There are few among them who may not be justly pleased at the information which we can glean from its pages, the contents of which we at once proceed to analyse:—

PRESERVATION OF NATIONAL PHYSIOGNOMY, IN SPITE OF TIME, CLIMATE, AND INTERMARRIAGES.

The first article is an analytic review of an essay by Dr. EDWARDS of Paris, entitled, "The physiological Characters of the Races of Mankind considered in relation to their History." The essay itself is manifestly one of great learning, ingenuity, and interest, and is designed to show that races will invariably preserve characteristic features of person, however ancient their origin. Thus, in the exhibition of Egyptian antiquities brought by BELZONI to London some years ago, and which were at least 3000 years old, there were figures of Jews depicted in procession on a royal tomb, so perfectly Jewish in complexion and physiognomy, that Dr. EDWARDS declares that they might have been regarded as portraits of Jews whom he had seen the previous day in the streets of London. We can verify, that his remark is most just. Egyptians, negroes, and Persians, exact images of the generations of those people now existing, were also exhibited in distinct processions on the same piece of antiquity. So in the "Last Supper" of LEONARDO DA VINCI, an excellent naturalist and observer, faces exist which were painted 300 years since, for which the Jews of 1834 might have sat. How sternly has nature resisted the effects of climate here! The fact settles an important question.

Plants almost invariably, when exported to new climates, retain their *peculiar* character, if they live. So, too, do the lower animals, "with the remarkable exception of changes in their fur and coverings; but even here the *essential* character remains unaltered."

Even the intimate admixture of two races does not, though continued through all time, prevent similar recognitions being made between the extreme ends of a race,—its first and its latest generations.

Supposing, says Dr. EDWARDS, that a very great *disproportion* exists in the number of the people who form the admixed race, why then the type of the smaller number will at last disappear. Thus, if a negro and a white person produce a mulatto child, and that mulatto cohabits with a white, the child of this second couple is more white than the child of the first couple. After five similar crossings with white persons, the black taint vanishes.

But what becomes of types when the two races are *equal* in number? Dr. EDWARDS reasons thus on such a case. He says it is "in the highest degree improbable" that both types should disappear, because it is almost impossible that each individual in the *one* race will unite with an individual in the other, or even nearly so. Yet that exact disposal of the people is absolutely essential to ensure the ultimate disappearance of the characters of both of the original races, and the formation of one intermediate type, and, therefore, even after scores of generations have passed away, the physical characters of each original race will be recognizable in the modern nation.

M. COLADON, of Geneva, made the following striking experiment:—He got numbers of white mice and brown mice, and made each white mouse breed with a brown one, expecting a race of a mixed colour. But not in one instance did the produce justify his anticipations. Each young mouse was either quite white or quite brown. The types remained pure. Yet, if animals of different species breed—say a lion and a tiger—something between the types is born. When, as in the case of the mice, the variety in the *species* is not great, as between white and brown mice, mules are not produced. Observe how curiously similar are the facts in the instance of man. Let a negro and a white cohabit, and the offspring will be a mulatto. Put negroes and individuals, who are much nearer in type to negroes than whites are, together, and the descendants will sometimes resemble one parent, and sometimes the other, and sometimes both.

"This is the cause of the great variety of types which is observable in modern nations, among which, however, specimens of the first and pure types are always observable."

A type may occasionally disappear by absolute extermination of the population. Such instances are on record.

As to the influence of civilization on physical characters we know nothing, says Dr. EDWARDS, but its effect, he presumes, cannot be great.

What, in the treatment of these questions, is meant by "type?" What are the characters which constitute the "type" of a race? They are those which may be drawn from the proportions of the *head* and *features*. The modifications of complexion, stature, and colour of hair, are considered to be but secondary characters in a type.

A large part of the work of Dr. EDWARDS is devoted to proofs of his principles, drawn from modern nations. In France, Italy, and part of Switzerland, he has discovered striking illustrations of his views. In travelling towards the frontiers of Burgundy he began to observe a union of features in the people, which constituted a *particular type*, and when he had penetrated to Chalons, and went to the market-place to study the faces of the peasantry, he was astonished at what he saw in confirmation of the views since explained in his work. In Florence he closely studied the *Roman type*, as it was presented in the busts of the emperors at the Ducal Gallery; and, subsequently, *in Rome*, he and his companions found the well-marked characters of those busts stamped with striking precision in the features of all classes of society. In Tuscany the type of Dante's peculiar features abounded in the existing people. At Radicofani he saw one man who was the very image of Dante, but near Milan the likenesses became exceedingly frequent, "and sometimes Dante was absolutely caricatured in the faces of the people." In one village he could scarcely take his eyes from off the peasants, so great was their likeness to those at Chalons,—a Gaulish type, as he naturally and justly concluded them to be.

According to M. THIERRY, to whom the work of Dr. EDWARDS is addressed in the form of a letter, England was formerly chiefly occupied by the people who possessed the north of Gaul, viz. the Kimris (to which the Dante type belongs), and Dr. EDWARDS has since recognised the type of the Kimris very abundantly in England. Those Englishmen who exhibit that type he considers to be the descendants of the ancient Britons, "whose supposed extermination," says the reviewer in the *Phrenological Journal*, "he very properly doubts." Dr. EDWARDS observed that a tall stature very often accompanies the Kimri type, wherever he has seen it,—in England or out.

Numerous other illustrations are furnished by Dr. EDWARDS, all affording the *Phrenological Journalist* an opportunity of suggesting how wide a field is thus opened as well to phrenologists as to historians.

Truly so, indeed. Phrenologists cannot seek too widely or too assiduously for *facts*, nor enforce them too urgently when once discovered. We discern a willingness amongst the members of our own profession to receive facts in this branch of science, of which the disciples of such an unwearied man as GALL ought not to neglect to take advantage. "If we decline," says the author of a "History of Medicine in the Present Century," contained in the twenty-fourth Part of the *Cyclopædia of Practical Medicine* (Dr. ALISON, of Edinburgh),—"if we decline to enter further into the speculations of phrenologists (which have attracted so much attention of late years), it is not because we regard the general principle of those speculations as *unphilosophical*, but simply because they are founded on a kind of observations which is open to various sources of fallacy, and derive little or no support either from experiments on animals or pathological observations on the human body, and appear, therefore, to be built on insufficient evidence." We believe that Dr. ALISON speaks thus, in what may fairly be regarded as almost total ignorance of the work of GALL, or that of VIGNE. But what may not the phrenologists expect, after such an admission, as to the "general principle" of the science, from the pen of one who is a fair sample of those who are "almost phrenologists," even without a knowledge of what is already on record?

TEMPERAMENT.—THE TEETH.

Article 2, is an "Essay on the Temperaments," by Mr. NOBLE. It contains nothing that is very novel, and is inserted by the editor because the writer has bent his subject to the purposes of phrenology, temperament being regarded by Mr. NOBLE as materially modifying the activity of the brain. The editor adds some remarks, in which he quotes Mr. COBBETT's advice to a lover to choose his wife, among other signs, by her *eating*. "Look a little," says Mr. COBBETT, at the labours of her *teeth*, for these correspond with the other members of the body, and with the operations of

the mind. 'Quick at meals, quick at work,' is a saying as old as the hills, in this, the most industrious nation upon earth, and never was there a truer saying. Get to see her at work upon a mutton chop, or a bit of bread and cheese, and if she deal quickly with these, you have a pretty good security for that activity, that stirring industry, without which a wife is a burden instead of a help." To this recommendation the editor adds, "We are disposed to think that CORBETT's advice will prove sound in all cases where the nervous and muscular systems are equally developed, equally healthy, and equally accustomed to exercise; but if the head be large and the muscles small, the individual will be much more inclined to mental than to muscular activity."

To our mind the advice deserved some criticism like this. "Nature meant teeth to be *used*, not food to be bolted. Teeth were designed to save trouble to the stomach,—to save it an effort which sometimes it cannot consummate at all. The young woman who deals very 'quickly' with her food will soon have a slow digestion, and that will end in disinclination to both mental and muscular activity. 'A time to work and a time to chew' is a better saying than 'quick at meals, quick at work,'—a proverb which taskmasters may easily make the agent of a gross crime against health." The saying deserves reprobation. We reflect too seldom on *the purposes of the teeth*.

A chief point, in the essay of Mr. Noble, is the position, that *power* is for the most part dependent on the quantity of the solid material in our organization, and that *activity* depends upon the character of the fluids.

ORGAN OF LANGUAGE.

Article 3, is the translation of a case from the *Encycloeddie Methodique*, in which a blow on the vomer was followed by a temporary inability to pronounce the words desired by the party stricken. "I heard," says the patient (a medical man), "what was said to me, and thought what I wished, but I pronounced other words than those which could express my thoughts, or if I began I could not finish them, but substituted other words for them. Nervous filaments pass from the brain, and enter the nose through the cribriform plates. Perhaps these received a shock from the blow, which was transmitted to the brain." The phenomena (says the editor) are inexplicable except on the principle that the brain is an aggregate of organs performing different functions, and the shock was imparted (by its situation) to the organ of language.

We here find our space, this week, fail us, and that the remainder of our analysis must be reserved for another number.

INTERCEPTED LETTERS.

"DEAR SIR ASTLEY,—You have, of course, seen at least a few of those paragraphs of a Mr. GUTHRIE which appeared in the newspapers, and which were collected together, surely by no kind friend, from no less than nine different journals, and published in the last number of the inconvenient journal,—each paragraph having, unquestionably, but one object in view, though differing a little in words and modes of expression, as though they all came from different channels. This, my dear Sir ASTLEY, is one of the most alarming cases of professional conduct which has for some time come before us, and we ought, if possible, by some means or other,—by hook or by crook, as the vulgar say—to have prevented them from appearing in their *new* shape before the public eye,—for although, I doubt not, they made very good puffs singly, yet collectively they look quite horrid. As it is, whoever Mr. GUTHRIE may be, he must abide by the consequences; for nothing that can now be said or done by the gentleman on the subject can alter the impression made on the public mind by such indecorous paragraphs.

"Since writing thus far I have heard, and am shocked at the news, that the paragraphist is really *the* Mr. GUTHRIE!!!

"It becomes you, therefore, as a member of the Council of Lincoln's-Inn-Fields, as well as sergeant-surgeon to the King, to bring this matter before the Council, in order that Mr. GUTHRIE may be dealt with according to his deserts. I am not aware how far your by-laws will enable you to notice such conduct, but it seems to me that it would be highly desirable *to remove him* from the Council, which might be done, as in the army, by his own tacit withdrawal of himself. Such a step would not only afford great satisfaction to the most respectable part of the commonalty, but would be a proof of the sincerity of your College in correcting abuses, and preserving the high moral character of the profession.

"You will be so good, my dear friend,

as to read over attentively the enclosed letter for Sir JAMES MACGRIGOR, which I beg you will personally deliver to him, and concert the most feasible manner of proceeding in this disreputable affair, and write to me fully with regard to your determinations. Sir JAMES is the only person whom I can think of as likely to have any influence with Mr. GUTHRIE. They have always *worked together*, and, to use a significant Irish expression, they have always pumped through the same quill. However, this is too serious a matter to joke about, so believe me, with the sedatest feelings, dear Sir ASTLEY,

"Yours very sincerely,

"H. H.

"Dec. 22, 1834."

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"DEAR SIR JAMES,—It is not too late to offer you my hearty congratulations upon the late change in his Majesty's Government, and it is easier for me to imagine than to find words to express the joy which you must experience in seeing your old master and benefactor, the illustrious WELLINGTON, again at the helm of state. And, above all, Sir JAMES, it must be a matter of great relief to your anxious mind that this happy change in the administration has not again replaced Sir HENRY HARDINGE at the War Office, so that you will no longer be kept in a constant fidget by his eagle eye. I never knew a man so inconveniently earnest in correcting official abuses, and who was more intimately acquainted with the whole machinery of the Army Medical Board than Sir HENRY, and his presence in Ireland will be a blessing to that distracted nation.

"But the subject upon which I am now compelled to write to you, is one of a very serious, as well as of a very delicate character, and I have therefore deemed it better that Sir ASTLEY should deliver to you the letter himself, that the matter may obtain your fullest deliberations, and that you may have the opportunity of consulting with each other on the most prudent steps which can be taken, if not to protect your friend and coadjutor Mr. GUTHRIE from the imputation of charlatanry, yet especially to support the character and reputation of the council of one of our royal professional institutions. The worthy Baronet will be able to state to you the extent of power with which the College of Surgeons are endowed for the suppression of quackery, and I do not know how far the case before us is amenable to the laws of our College. But whatever be the law, there could be no doubt of the expediency of his *retiring* from the Council; and considering the close intercourse you have so long had with Mr. GUTHRIE, the zeal you have displayed in establishing for him, and supporting through all its difficulties, the *Ophthalmic Hospital*; the enthusiasm with which you have defended all the proceedings which have taken place in that institution, particularly where the conduct of Mr. GUTHRIE was such as to render it imperative for my worthy friend Dr. Forbes not only to resign his office, but to expose the quackery which prevailed there; I say that under all these circumstances it becomes you to act decidedly in this matter, and you ought, in particular, to impress on Mr. GUTHRIE, that he can never again expect to get another man, good-natured enough to allow himself to be shot at in defence of his conduct. I sincerely trust that the nine paragraphs which appeared in the newspapers, and which were printed collectively in the last number of one of the medical hebdomadals, were not all in the same handwriting, as that would afford the most incontrovertible evidence against him, for you must well recollect the importance which you attached to the autograph of "ACIES," as a means of convicting that dastardly libeller, had the case come to trial. Ever, dear Sir JAMES, your obedient and faithful servant,

"H. H.

"Dec. 22nd, 1834."

BOOKS RECEIVED.

A Practical Treatise on Medical Jurisprudence, with so much of Anatomy, Physiology, Pathology, and the Practice of Medicine and Surgery, as are essential to be known by Members of Parliament, Lawyers, Coroners, Magistrates, Officers in the Army and Navy, and Private Gentlemen, and all the Laws relating to Medical Practitioners; with Explanatory Plates. By J. Chitty, Esq., Barrister-at-Law. Part I. London. Butterworth. 1834. Roy. 8vo. pp. 466.

An Inquiry into the Nature and Properties of the Blood, in Health and Disease. By the late C. T. Thackrah. A new and enlarged edition; arranged and revised by T. G. Wright, M.D. With a Biographical Memoir of Mr. Thackrah. London. Longman. 1834. 8vo. pp. 246.

The Author of the Warning is informed, that his communication was forwarded at too late an hour to permit its insertion in time to serve the desired object.